

AMERICAN ARTISAN and Hardware Record

Vol. 81. No. 13.

620 SOUTH MICHIGAN AVENUE, CHICAGO, MARCH 26, 1921.

\$2.00 Per Year.



(Trade Mark Reg. U. S. Pat. Off.)

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*Write today to us or your nearest jobber
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Jobbers
Can Supply You*

*Write
Today for
Catalog and Prices*

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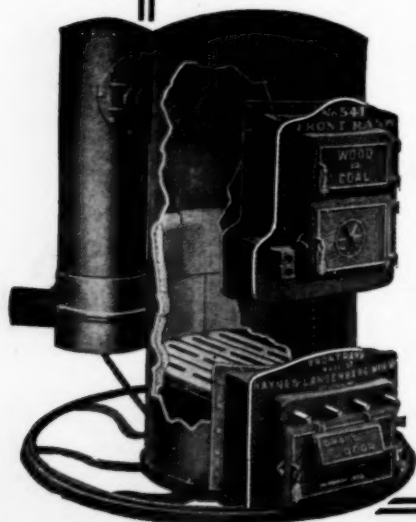
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Its radiating surface is exceptionally large. It is made of tested metal, cold riveted heavy steel plate. It is fool-proof—always in order. The furnace that gives you not only good profits but safe profits. **Ask about our agency NOW.**

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The Hardware, Stove,
Sheet Metal, and Warm
Air Heating and Venti-
lating Interests

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CHICAGO, MARCH 26, 1921.

\$2.00 Per Year.

It is really a wonder that some manufac-
turers are getting any new business in these
days, judging from the atten-
Who Will Get tion their so-called sales de-
The New partments pay to inquiries
Business? from well rated concerns.

A letter stating that he
was in the market for certain goods and re-
questing the names of manufacturers of this
class of merchandise was recently received
by American Artisan and Hardware Record,
and in accordance with our policy the sub-
scriber was informed that he might secure
what he wanted from a number of concerns,
the names and addresses being furnished to
him.

A letter was also sent to each one of the
manufacturers, informing them that the sub-
scriber was in the market for some of their
goods.

In reply to this letter, one manufacturer
made the following interesting statement:

"We have your esteemed favor of March
18th and thank you for the courtesy ex-
tended in referring us to — —, — as manu-
facturers of — — —.

"We shall be pleased to furnish the desired
information as soon as we hear from them."

It is, of course, barely possible that this
manufacturer had so many orders on his
books that he could not, or did not want, to
take on any more business. If that is the
case, there may be some excuse for his atti-
tude, but his reply may also indicate the rea-
son why his business is not progressing very
fast—and that is the more reasonable expla-
nation. He fails to take advantage of the
openings that a too kind fate places before
him.

Here is another letter pertaining to the
same inquiry:

"We have your letter of March 18th, ad-
vising us that you had referred — —, — to

us as manufacturers of — —.

"We wish to thank you for referring this
firm to us, and we assure you that this in-
quiry will have our prompt and careful atten-
tion, and that every effort will be given to
quote price and delivery to warrant them
placing their orders with us."

Both letters were courteous, but what a
difference in the attitude of the two manu-
facturers.

Number one thanks us for a "courtesy"
rendered them—and then waits for the pros-
pect to take action.

Number two thanks us for giving him the
name of a prospect—and goes after the busi-
ness with description of his product, prices,
terms, etc., "every effort to warrant placing
their order with us."

Where would you be likely to place your
order?

◆ ◆ ◆ ◆ ◆

Hardware manufacturers and dealers as
well as sheet metal contractors are more or
less puzzled by the situation
The Steel in the steel market. A num-
Situation ber of steel producers have
offered steel products at va-
rious cut prices, while others instead of nam-
ing prices as the acceptable minimum have
stated to quondam buyers that they will be
glad to consider bids.

The apathy of buyers may be considered
remarkable, and yet it is not remarkable con-
sidering the precedents the steel industry has
established, declares the American Metal
Market. It is perfectly clear that it is not a
matter of price that is holding back the buy-
ers. There is no bid and asked market.

Buyers do not indicate that there is any
price for steel at which they would take hold.
Some buyers indicate roughly the conditions
under which they might take hold, but these
conditions involve lower costs for putting

the steel into consumption and lower prices for commodities that have to be used in conjunction with steel.

While the steel producers can negotiate as to the prices at which they will sell steel they can not negotiate as to these other items.

This is no unprecedented condition in steel but is, indeed, one that has been observed on various occasions in the past. The only real difference is that there is greater unanimity among buyers as to unwillingness to take hold at any price. The exceptions to the rule are fewer than ever before.

Practically no one is in position to buy steel unless he can use it. Steel as a rule can not be bought on speculation.

A guess carefully formulated in the office of the American Metal Market some time ago is that the steel industry produces about 50,000 different items, counting the various sizes and descriptions of pipe, of bars, of sheets and the various other general commodities.

The estimate includes only the regular steel mill products, not the manufactured goods that are produced by some who manufacture and roll steel, such as formed metal products, oil derricks, freight cars and forgings.

It would not be fair to include such things, as they are produced also by those who do not make and roll steel. It is true that jobbers and manufacturing consumers know to a great extent what sizes and descriptions of steel mill products they are likely to use in future, but they do not know the precise proportions and all probably have fair sized stocks at the present time.

◆ ◆ ◆ ◆ ◆

A pneumonia germ is so little that it would take about a million of pneumonia germs to equal the size of an early

**The Bigness of
Little Things**

June pea. Nevertheless, a dozen pneumonia germs can cause more damage than a squad of soldiers with a machine gun. As to their power for good or harm, the bigness of little things is not always clearly realized.

Take for example such an insignificant thing as a card in the window display of a hardware store, announcing "Clerk Wanted." Often it is the direct factor in loss of sales. The passer-by who is in quest of some article of hardware may be in a hurry. When he sees

the sign "Clerk Wanted," he derives the impression that he will have to wait in order to get service. Hence, he hastens elsewhere.

The window is not the place to advertise for store help. The classified columns of newspapers and trade journals bring better results than the window and without producing any undesirable impression. If you are a subscriber to American Artisan and Hardware Record you are entitled to insert a help wanted advertisement free in our classified columns. This is part of our service to our patrons.

◆ ◆ ◆ ◆ ◆

The more you know about the quality and uses of the goods which you sell, the easier

**Learn More
About Goods**

it is to sell them. Take for example such a simple matter as hanging doors on three butts instead of two. In selling three butts for each door, the hardware retailer removes a cause for future complaints, and at the same time increases his profits. Here is the selling argument which he can use to convince his customer:

The center butt prevents the door from striking or interfering with the door-stop, if one is used, or the edge of the rabbet, if door-jamb is rabbeted, when the door has a tendency to bow or warp toward the door-stop or the center of the door-jamb.

Moreover, the center butt will hold the butt edge of the door flush with the casing edge of the door-jamb if the door has a tendency to warp away from the door-stop or the edge of the rabbet of the door-jamb.

On the other hand, if a door is hung on only two butts, each butt carries one-half of the load or weight of the door. But when a door is hung on three butts, each butt carries approximately one-third of the load and the strain and wear of each butt is correspondingly decreased. The butts, door-jamb, and doors will, therefore, have a longer life and cause less trouble to the operators of the doors.

When three butts are used, the top edge of the door remains in line with the head-jamb, and the bottom edge of the door is parallel with the edge of the threshold. The top and bottom of the door can not be thrown out of line by the door warping or bowing on the butt edge of the door, as it is firmly held in place by the center butt.

Random Notes and Sketches

By Sidney Arnold

I had the unexpected pleasure the other day of a visit with George W. Jeffords, whom I had not seen for several years while he was sojourning in Mexico.

George is well known in the hardware trade and has a personal acquaintance with practically every hardware wholesaler in the South as for more than fifteen



George W. Jeffords.

years he sold enamel ware in that territory. He has now returned to "God's Country" and has connected himself with the Strong Manufacturing Company, Sebring, Ohio, whose line he will extoll the merits of in the southern states.

Good luck to you, George!

* * *

There are hotels and hotels. Some of them are still suffering from the notion that a traveling salesman has nothing to do but to spend money and does not care how much they charge, nor how little service they render for the money they demand.

I have been in hotels during the past three months, and have had to run gauntlets of bell boys who were not looking for opportunities to render service, and who were allowed by the management to show their impertinence if you did not let them carry your grip the few feet from the door to the desk.

The sooner such hotel managers wake up and realize that we have entered upon a new era—one of thrift, as against the period of reckless wasting of money of 1918 to 1920—the better it will be for their goodwill among the knights of the grip.

It was my misfortune to be in Columbus, Ohio, some time ago, where there is only one really modern hotel. I am not going to mention its name, for it belongs in the class to which reference has just been made.

Going from there, I had the pleasure of stopping at the Hollenden Hotel in Cleveland, Ohio, and a few days later at Hotel Durant, Flint, Michigan.

In both of these hotels, the service was excellent, the rates reasonable, and there was no attempt on the part of the employees to force gratuities from the guests. In like manner, the dining room charges had some relation to the revised prices of meat and vegetables. It was possible to get a decent meal without spending a day's commission for it—commissions are not big in these days, you know.

While on this matter, I am inclined to believe that the dining car department of the New York Central Lines might be able to serve a cut of apple pie for less than 35 cents, said cut being about one-eighth of a pie.

* * *

Ralph W. Blanchard, of the Chicago office of Hart & Cooley Company, tells about two salesmen who traveled for rival soap manufacturers.

They were bragging about how long their respective products had been in use.

"Why, my soap was used by the pioneers when they first scoured the plains," bragged the first salesman.

"Yes," agreed the other. "But mine was what they used to scour the plains with!"

* * *

There is an unusually inquisitive boy next door to my friend E. C. Fox of the Independent Register & Manufacturing Company, Cleveland, Ohio.

The other day friend Fox heard him asking:

"Ma, do cows and bees go to heaven?"

"Mercy, child, what a question! Why?" replied his mother.

"Cause if they don't, the milk and honey the preacher said was up there must be all canned stuff."

* * *

The past is of use to us only in the measure with which it supplies experience for the tasks of the present. It is a blunder, however, to live in the past and to gauge today's work by the standards of the past. The only parts of the past and its experiences that are of any value now are the lessons from it that we have been able to build into our lives for present use.

To carry into today's activities any of the sorrows or disillusionments or tragedies or worries of the past is to add a needless and weakening burden to our lives. The joys of the past and its pleasant happenings are worth remembering because they strengthen us. But we should keep out of the past and forget it as to its disagreeable and gloomy history. Here are some verses that give point to these observations:

Keep Out of the Past.

Whatever you do in this wonderful world,
In business, in church or at play,
Whatever of gain or of loss you have met
With the others who go away,
Keep out of the past
From the first to the last,
And away from its worries stay;
The present has wealth you would never suspect,
If prudent you are and wisely elect
To live in the light of today.

So cramped can we be in our mental state,
So burdened with might-have-beens,
That life will become a woeful waste
For its many outs and ins.
But stop and reflect
You will never be wrecked
By your own or another's sins,
If the past you will keep in its proper place
And meet what is yours with a candid face—
'Tis the man of today who wins.

Up-to-the-Minute News Siftings

*Items of Interest to Dealers Gleaned from Many Fields.
National and Local Business Plans, Problems, and Practices.*

EXPLAINS THE TEST OF COOKING RANGES.

(Continued from last week.)

We have to determine as a preliminary how the rate of heat transmission to a vessel placed in the same oven varies with its size. We can not put a number of vessels in the same oven together, because the presence of each reacts on the others. This can only be done by placing within the oven in succession, two or three vessels similar in shape but differing in size, heating the oven to the same degree on all occasions, and investigating what is the result of the total transmission. It is found that these quantities vary in proportion to the square of one linear dimension as nearly as may be within reasonable limits of size. If we double the outside surface of the vessel in the oven, it will receive from the oven twice as much heat in the same time.

The consideration of this experimental fact shows that the solution of this extremely difficult problem is to calculate what the rate of transmission would be to the vessel if the latter is assumed to expand in size until it completely fills the oven, the transmission being assumed to be at the same rate as when the object is small.

This rate we call the total transmission, and it is in one sense a fictitious value because it assumes that certain conditions will hold to the limit; whereas we know by experimental observation that they only hold within a certain limited range. This calculation is necessary in order to establish a comparison between ovens and vessels of different size. It eliminates the question of size from the problem.

A very important and difficult question—is the character of the vessel placed in the oven. During the earlier series of experiments which we made at the University College, the vessel was designed to resemble in general shape an ordinary earthenware cooking pot, such as is in common use in old-fashioned households for stewing and casserole work.

We made a large copper vessel of a convenient size, but aimed that it should have a heat capacity equal to one gallon of water. The vessel was blackened all over on the outside, so that it would absorb the maximum amount of radiation in a given environment. The vessel was placed in the oven, and we made elaborate electrical devices for determining its temperature without opening the oven door, and also for stirring the water inside it, so that it was as a whole at a uniform temperature.

Many experiments were made with this appliance. The temperature was observed until the water boiled. The essential difficulty of the use of this appliance was that it did not receive heat at a constant temperature, and, therefore, the rate at which it received heat varied according to the stage of the experiment. When the

water was hot it would receive less heat per hour per square foot, than when it was cold.

This brought us hard up against another formidable difficulty, namely, that the condition of the oven interior can not be determined by any form of thermometer placed within it, partly because the temperature taken up by the thermometer is influenced by the temperature of the object in the oven, and partly because the temperature taken up by the thermometer depends on the physical condition of the bulb and is no criterion of the rate at which heat is communicated to a cold vessel placed in the same environment.

When a cold vessel is introduced into a hot oven, the apparent temperature as read by a thermometer falls rapidly, not because the rate of transmission has been reduced, but because of the proximity of the cold vessel to the thermometer. We showed by prolonged experiment that the temperature of the thermometer in an oven has no significance at all, and the experiments, therefore, had to be conducted independently of that instrument. I have frequently pointed out in connection with the heating of a room, the significance of thermometer reading as an index of room temperature is very limited. It is even more so in the case of an oven.

Multitudes of diagrams were plotted from observations taken with this instrument. They plotted on a time base the fuel stoked on the fire, the temperature of the vessel in the oven, the thermometer temperature, for what it is worth, of the interior at the top and bottom, the rate of draught, the temperature of the flue gases, the composition of the same in respect of carbon dioxide, and other matters of the same character, leading to an immensely complicated diagram.

Every day's observations were plotted in this manner, resulting in a vast mass of diagrams, from which the essential theory of the various appliances has to be deduced. An examination of one of these diagrams would show the sort of difficulties with which any experimenter will be confronted.

It will be remembered that what is aimed at in experiments of this kind is to determine the rate at which heat is communicated to the vessel in the oven. Our only indication of that rate is the rate at which the temperature of the object rises. In order to determine the rate we have to differentiate graphically the curve of temperature, and this is a prolonged and tedious business. I have pointed out also that this rate of rise depends on the temperature of the object, and that all the curves of rise are asymptotic to a line representing what may be called in ordinary parlance, the temperature of the oven as observed by a thermometer with a bulb as large as and of the same character as the vessel itself.

The labor involved in analyzing these documents was so tremendous that we had to devise an entirely

different method of making the observations in order to eliminate these time and soul destroying difficulties. The essence of this improvement was to substitute for this heavy and cumbersome vessel and the elaborate plant for stirring and taking temperature observations a closely wound coil of copper wire whose outside dimensions as nearly as possible resembled those of the vessel. Through this coil a constant stream of water was maintained at a constant temperature. Thus, the difference between the temperature of the water flowing in and that flowing out of the coil was clearly a measure of the rate of transmission.

We found great difficulty at first in keeping this stream of water absolutely constant. Ultimately we designed a special form of tank which would keep the flow of water absolutely constant from hour to hour and from week to week. This device, in which we feel some pride, was an adaptation of the principle of the water meter, in which water is allowed to flow over a notch, the height of the water above the bottom of the notch being a measure of the flow. It consists of a tank divided into two parts by a partition in which there is a small hole. The water is allowed to flow into one in which an overflow device is fixed, whereby the water level in that half is kept absolutely constant, and therefore, the nozzle through which the water squirts is under a perfectly constant head of water. Thus, the amount of water flowing through the nozzle must be absolutely constant.

This water is all collected from the second half of the apparatus, and is allowed to flow through the coil, thus keeping the rate of flow through the coil perfectly constant. Then, the difference in temperature between the inlet and the outlet clearly is a measure of the rate of transmission existing at the time, and no process of differentiation and no calculations are necessary once the constant of the coil is known. We can observe the rate of transmission directly from start to finish, and at an approximately constant temperature, and we determine the total transmission from lighting the fire to the dying out.

This apparatus was found to be most satisfactory in practice, and all the later experiments were conducted by its means. One considerable advantage was that all the transmission to the coil took place at the same temperature, and this difference between the flow and the return can be taken as a sort of oven temperature in a true sense. By increasing the observed transmission in the ratio of the inside surface of the oven to the outside surface of the coil we obtain what we call the "theoretical maximum transmission" of an oven of any desired size.

We have now to lay down the method in which the oven is to be used, the rate of stoking, and similar conditions. The great difficulty in this case is that all ranges vary widely between themselves in the rate at which the temperature can be raised. When a housewife uses a range she naturally desires to raise the temperature up to the desired point in the shortest possible time. Hence, the method of using the oven, if it is to correspond with practice, should involve raising the temperature as rapidly as possibly up to a certain desired transmission, that rate of transmission

being, suppose, such that bread can be suitably baked in the oven.

This oven condition is represented by a certain difference between the flow and return of the indicating coil. In our case the inlet temperature of the water being 60 degrees, and the outlet temperature in the neighborhood of 110 degrees, corresponding to a total rise of 50 degrees, the rate of flow of water being 50 pounds per hour, the oven was in a condition to bake bread. The coil constant is a figure which, when multiplied by the difference of temperature with a constant standard flow, gives the rate in British Thermal Units per square foot per hour at which heat is communicated to the coil.

The difficulty in the case of an oven using solid fuel is to maintain anything resembling constancy without artificial cooling, or wasting the fuel. Solid fuel has the essential disadvantage that its combustion can not be rapidly and accurately controlled. It is in this respect that gas as an oven fuel is so immeasurably superior to solid fuel, for a gas oven can be controlled with absolutely certainty by merely turning the gas up or down.

The ideal experiment would be one in which the oven temperature was raised to the desired point in a certain specified time—which for gas ovens we have laid down as 20 minutes, but which for a coal fired oven is rarely less than an hour—and maintained exactly at that transmission for a further period of two hours, the power then being shut off, and the oven being allowed to cool, the temperature of the water being observed during the whole time.

This, then, in brief outline is the method which I propose for standardizing the testing of oven heating cooking appliances. For the hot water supply we have a similar series of difficulties, which will be more familiar to the members of the Institution, as they resemble to some extent the difficulties which we always experience in testing boilers.

We are concerned chiefly with the rate of fuel consumption and the fact that the efficiency itself is a function of the fuel consumption. There is an extraordinary difference, however, between all the results obtained in these experiments and those commonly obtained with boilers—that as the rate of fuel consumption arises, so the efficiency rises. The opposite is the case, as is well known in boiler testing, above a certain point.

Doubtless, if it were possible to push the consumption up high enough in a cooking appliance, we should find the same diminution to the efficiency as is observable when a boiler is forced, but if any cooking appliance were pushed to such an extent that this drop in efficiency were to be observed, it would probably be melted or seriously damaged by excess of heat.

(To be concluded next week.)

Some people ask for raises in such a way that it amounts to a demand, which, when refused, leaves them dissatisfied and uninterested in their work.

Investigate the advertising pages of this issue of AMERICAN ARTISAN. They present new opportunities to you.

It Is Easy to Sell Washing Machines if You Know How, Says Lewis C. Abbott, of Marshalltown, Iowa.

This Progressive Hardware Dealer Makes Good Use of Power of Suggestion When Working on Prospective Customers.

Washing machines have been on the market for a good many years, but it wasn't until comparatively recently that a really definite effort was made to induce every home owner or occupant of rented homes to buy such an apparatus.

By many persons, the washing machine was regarded with distrust: It would tear delicate fabrics, some said; it would not wash heavy or very dirty articles thoroughly clean, others said; there was really no labor saved by using a hand washer, still others opined.

Then the American Washing Machine Manufacturers' Association was organized, and many of the unpleasant features with which both manufacturers and retailers had been forced to contend were abolished, and an entirely different tone and new life was put into the selling of these highly useful labor saving appliances.

No longer was it a matter of mere price.

The chief argument was made on the basis of the real service that could be obtained by the purchase of a power washing machine, or even of one operated by hand—with the natural result that the suspicion of the two classes who professed to doubt its ability to do the washing satisfactorily to the most particular house wife was overcome, as well as the claim that it did not really save labor.

The washing machine business of today is entirely different from that of ten years ago, and even of that of five years ago.

In former days, the retail hardware dealer would think that he did well if he sold a couple of dozen of hand machines in a year. Today he is not satisfied unless he sells several dozen of electric, water or other mechanical power washers, besides a goodly amount of hand machines.

In former days, he did not create sales. They came without any specific effort on his part, except for an occasional advertisement in his local newspaper, or for a sample being placed in his show window.

Today, the progressive dealer in washing machines

goes after the business with a well planned campaign. He has a list of live prospects and keeps this list alive, both from the standpoint of new names and that of completed sales.

A good example of this type of hardware dealers is the corporation of Abbott & Son, Marshalltown, Iowa, of which Lewis C. Abbott, former President of the National Retail Hardware Association, is a member.

Abbott & Son sell White Lily Washers; they believe thoroughly in the high quality of this line, and their

faith in the line shows itself in the way they talk about White Lily Washers to their customers. They realize that one of these washing machines placed in a home will make a good friend for Abbott & Son out of the housewife, because it will make her work on "Wash Day" far less laborious, and according to the statement of E. L. Billings, President of the corporation, many a new sale is traceable direct to the installation of a White Lily in the home of a neighbor.

One of the latest "stunts" that they did in advertising is indicated by the illustration shown on the opposite page. Note the argument presented. Isn't that about as close to common sense as you can get? And the best part of it is that the argument worked, for during the weeks before Christmas there was a very noticeable increase in sales to farmer families. Sometimes the "old man" came in

alone, but frequently he brought the "Missus" along, so that she might pick out just the style she wanted.

Mr. Billings has this to say about their washing machine business and how they have developed it:

"Besides advertising in the newspapers of Marshalltown and neighboring towns, our main way of advertising is by booths at the County Fair, where hundreds of people are interested in a more or less active manner, and by our window displays.

"In both displays we always show the electric type in motion and with a big volume of white suds and foam, standing up high above the tub. This never fails to attract attention.

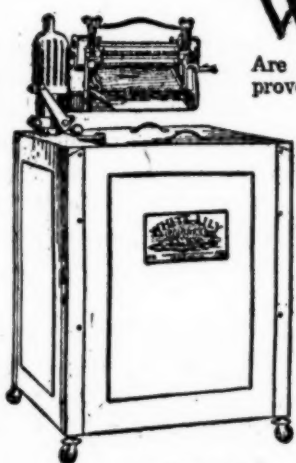
Mr. Abbott believes in using the other fellow's argument on him. When the farmer said that "they" did not need a washing machine, Abbott told him that he would either have to bring back a manure spreader that he had recently bought, or else buy a washing machine for his wife, the farmer had to admit that "they" did need one—and the sale was made.

Labor saving machinery is the rule in the progressive farmer's working equipment. It is up to the hardware dealer to see that the same rule holds good in the case of this farmer's wife's working equipment.

Whenever a farmer buys a piece of modern machinery to use in the cultivation of his land or in handling the products of his farm, make sure that his wife is put on your list of prospective customers for washing machines, unless she already has one.

"We know that we have the best washing machine made, which is an important item in selling, and they are sold on an absolute guarantee for five years. We find that they make good, for no repairs are needed until seven or nine years after the machine has been put in use.

"We have two men in our store who have made a special study of washing machines, and to make sure that they are thoroughly posted we send them to the



Wake Up

Are you using the latest improved machinery on your farm? Are you using up to date methods in your office, No doubt you have a sun shade on your planter or a self starter on your automobile. Everything possible to make your work easy.

How About Your Wife

Does she do the family washing the same as her grandmother did fifty years ago?

WAKE UP!

She is entitled to the same consideration in her work as you are in yours. Give her one for Christmas. We can supply her needs from THE WHITE LILY LINE in hand, power or electric washers.

ABBOTT & SON

The Busy Hardware"
MARSHALLTOWN, IOWA

This Advertisement Brought Big Returns Because It is Based on Sound Reasoning.

Iowa State Retail Hardware Convention at Des Moines every year, so that they may compare the White Lily line with others.

"In that manner they are enabled to talk intelligently to prospective customers, not only about our line, but also about others, pointing out just where White Lilies are superior to the other kind."

Incidentally, it is worthy of mention that the idea for the advertisement shown herewith came to Mr. Abbott in the following manner:

A well-to-do farmer who had recently installed electricity in his home, came into the store and after selling him a few articles, Mr. Abbott asked him if he had an electric washing machine. The answer, of course, was "No, we do not need a washing machine." However, Mr. Abbott insisted on showing him the machine and finally told him, "Now, you are either going to buy an electric washing machine or bring back that manure spreader you bought the other day. Your wife is just as much entitled to have labor-saving machinery as you are."

The farmer left the store, but in a very few days came back bringing his wife with him, and not only bought a washing machine, but purchased over \$200.00 worth of other electrical appliances.

Advises Retailer to Take the Public Into His Confidence.

The time is at hand when retailers must follow the example of public utility concerns and manufacturers, by taking the public into their confidence in regard to their problems, declares Alvin E. Dodd, manager of the Domestic Distribution Department of the Chamber of Commerce of the United States.

"Retailers have been entirely too backward in telling the public how they do the job," said Mr. Dodd, "but the time has come for the building of a better understanding between retailer and the public. The public as well as individuals are likely to be prejudiced against that which they know least about and it is partly for the purpose of bringing about a better understanding of the processes and problems of distribution that the Chamber of Commerce of the United States recently established a Department of Domestic Distribution."

Pointing out that the public is intensely interested in the difference in prices between producer and consumer, Mr. Dodd said:

"The recent period of high prices has brought an insistent demand that the public be shown why the cost of an article, generally speaking should be doubled or trebled between producer and consumer. And there are very good reasons why this situation is uppermost in the mind of the average person. The cost of living, which according to government figures, rose 124 per cent, from 1914 to 1920, according to the same figures had fallen but sixteen per cent, up to the first of January, and today probably equals twenty per cent.

"The public thinks profits have been too large and suspects that too many people are getting them. Therefore it is eagerly trying to arrive at an understanding of distribution, comparable at least to the general understanding which it has of production. The public can and should be told the inside problems with which the retailer is confronted in very much the same manner that many manufacturing and public utility concerns have followed."

Mr. Dodd outlined the preliminary results of an inquiry of business houses as to what steps they are taking to cut down expenses. Replies show, he said, that merchants throughout the country are studying how they can reduce operating expenses to meet lower prices.

Incorporates Hardware Company.

Dowden Hardware Company of Plainview, Texas, has been incorporated with a capital of \$60,000 by E. Dowden, Fred L. Brown and F. Dowden, Junior.

Your attention is directed to an exclusive feature of AMERICAN ARTISAN AND HARDWARE RECORD. It has the distinction of being the only publication which gives Western hardware and metal prices corrected weekly. You will find these prices on pages 36 to 41 inclusive.

Good Ideas for Window Display

Practical Lessons from Exhibits in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition. How to Get More Passers-By to Come into Your Store.

WINDOW EXHIBIT GAINS FOURTH PRIZE IN COMPETITION.

The window display of sanitary dairy supplies, shown in the accompanying illustration, was awarded the fourth cash prize in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition. It was designed and put in place by Anton F. Krcma, for J. J. Stangel Hardware Company, Manitowoc, Wisconsin.

So instructive and complete is Mr. Krcma's descrip-

many milk cans and pails in the month of January as you can in the spring when the cows first enter the pasture?

"I have made the experiment and am convinced that it can be done. I made a display which attracted so much attention that not only farmers purchased milk cans, milk pails, cream cans, testers, milk tubes, etc., but the city people as well bought small pails (size from two to four quarts) to carry their milk home from the milk stands which now sell milk two cents less than if you have your milk delivered.



Window Display of Sanitary Dairy Supplies Designed and Arranged by Anton F. Krcma for J. J. Stangel Hardware Company, Manitowoc, Wisconsin, Awarded Fourth Cash Prize in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

tion of this exhibit that we are glad to step aside and let him tell the story of this clever example of window advertising, as follows:

"To show the spirit of the merchandise and to make a logical appeal to the class of people that might be considered as future customers is the aim of every display man.

"This proves a hard task at times. It is just as essential to have the best window display as it is to have the most efficient hardware clerk behind the counter.

"Most every hardware dealer possesses a tin shop and makes milk cans, but if not so fortunate, he at least sells them. I dare say that very few ever make a good window display or make any effort to sell them or remind the public of the complete line of sanitary dairy supplies which they handle.

"Did any of you ever realize that you could sell as

"We also booked orders for milk cans to cheese factories for spring delivery which some one else would have sold had we not made a display at this time.

"It isn't the window display filled with merchandise that sells the goods. People go by and never notice your display even if it is good, but it makes a good deal of difference if you have something there to attract their attention and hold them for a minute or two. That's what counts.

"This display, which anybody can make, has attracted more people to our window than any other display which I have made.

"Children went wild over the boy milking the cow. Here is an instance of what effect this display had on the public: The boys scout executive of our town had the boys write and describe any window display they desired to write on in the city as one of their tests.

"The executive was astonished to find that every

one of the boys had selected the window which contained the boy milking the cow. There is an example of what a good display will do to interest the general public at large. I hope others will take the initiative and profit by my experiment.

"The display was simple yet carefully studied to balance right. The floor was covered with straw and in front of the display were milk strainers, dippers, ladles, milking tubes, etc. The main attraction in this display was the boy and the cow, which were perfect.

"The cow was made out of cardboard. The boy was dressed as a real farmer boy and took well with the public. The cans were displayed on both sides of the cow on pedestals and on the floor.

"There was just enough merchandise used so as not to crowd the display. Here is another point why a display of this kind pays and helps to sell other merchandise.

"A gentleman told me he was riding in his car through town and passed our store and the reflection of the display appeared on his windshield. He looked but was too late to see the display but went on to a movie. After returning from the show he decided to pass the store again and see what it was that attracted his attention. What better advertisement do we desire?"

Window Display Features One Line of White Ware.

There is a timeliness in window advertising which can be taken advantage of with as much force as in newspaper advertising.

Mr. Sloan made a sign, "Great White Sale" in keeping with the other white sales. He placed it in a conspicuous part of the window. He also had another sign reading, "Pre-war Price Sale Begins Friday."

Instead of white goods he had white enamelware and displayed only one line of these products, making generous use of advertising helps furnished by the manufacturers of the ware.

The display was connected up with a big advertisement in the local newspapers and it derived much force of suggestion from the fact that the thought of "White Sales" was in the minds of readers because of the special publicity of the dry goods stores at the same time.

The result of this exploiting of timeliness was a noteworthy increase in the number of sales of high grade white enamel ware.

Pittsburgh Hardware Men Will Discuss Paint and Varnish.

Successful methods of selling paints and varnishes will constitute the main topic of discussion at the regular monthly meeting of the Pittsburgh Retail Hardware Dealers' Association, which is to be held Friday evening, April 1, 1921, at Hotel Chatham, 423 Penn Avenue, Pittsburgh, Pennsylvania.

In his monthly message to the members of the Association, President Samuel K. Warning says:

"We would like to see every member come to this meeting April 1st, 1921, accompanied by the clerks in their employ. Especially we hope the dealers handling Paints and Varnishes will avail themselves of the



Window Display of White Enamelware Designed by C. E. Sloan for Odell Hardware Company, Greensboro, North Carolina.

A convincing example of this sort is furnished by the window exhibit of Odell Hardware Company, Greensboro, North Carolina, shown in the accompanying illustration.

It was arranged and planned by C. E. Sloan, Display Manager of the firm.

At the time that this window display was put in place, all the dry good stores in Greensboro, North Carolina, were having "White Sales."

opportunity to acquire fuller information on this important line.

"This meeting promises to be one full of interest and information as to what is being done and what may be expected to help us sell Paint and Varnish.

"We will have a lot of good Window Trim Cards and advertising to distribute to all present. Therefore we hope you will come and get yours.

"'Save the surface and you save all'."

Can Your Store Pass This Examination on Business Efficiency as to Management, Service, and Sales?

It Will Be Worth Your While to Ask Yourself the Questions Listed Below and to Answer Them Properly.

By this time, practically every retail hardware dealer has taken his inventory, written off his loss for depreciation and knows fairly accurately how he stands financially.

Some of you may also have taken another sort of inventory—that of yourself, your employees and of your relations with the people from whom your trade must come.

If you belong in the latter class you are now able to analyze the reasons for the success you have made or for the lack of success which you may have failed to gain.

Whether your business has been good or poor during the past year, it is of the utmost importance that you take such an inventory as indicated in the second paragraph of this article, for only by so doing will you acquire the knowledge necessary to make progress.

Captain John W. Gorby, Manager of the Research Department of the Cyclone Fence Company, Waukegan, Illinois, has devised a chart or form which will materially assist you in taking this inventory of the "intangible stock" in your store and thereby make you more efficient and, therefore, also more successful.

The questions to be answered are 25 in number and cover a very wide range, as will be noted from the list herewith, under the caption, "Can Your Store Pass This Examination?"

It will be noted that Captain Gorby has apportioned various degrees of "credit" for these questions, and in general the apportionment may be considered well planned, although naturally in individual cases there may be good reasons for a different arrangement of "credits."

The first question, "Have you an up-to-date business system in your store?" is an important one, and unless you can answer that positively, there will come a day when your business will fail, because without such a system you cannot keep yourself posted on the

most salient features of your buying and selling.

Question number two: "Do you welcome suggestions?" If you do not, there is not much chance of your success, for no man ever knows all there is to know about his business.

Question number three: "Do you take an annual inventory?" The Income Tax Law has forced many hardware dealers to take their first real inventory, and a goodly number of these thus gained their first real

knowledge of what they had been doing and of the actual condition of their stocks. Without an annual inventory any dealer is like a man driving an automobile without lights on a dark, misty night over a road that is strange to him: *He does not know where he is going.*

As to question four, there may be divergence of opinion. Many successful merchants buy certain articles for the specific purpose of using them as "leaders," and are satisfied to lose money on them, because by the use of these "leaders," people are attracted to their store and induced to purchase enough of other merchandise to yield a fair profit on the entire transaction.

Question five: "Can you state definitely what your overhead expense amounts to?" If you can't you are like the man who is driving a blind horse without lines to guide him—you are more than likely to land in the ditch.

Question six: "Have your sales reached a maximum for the expense involved in selling?" If they have you are one man in a million. Put more personality into your sales effort—your own personality as well as that of your prospective customers.

"Do you know what lines pay best and which pay least?" You can not answer this question definitely unless you have a well departmentized bookkeeping system (which costs much less to operate than you may think). And unless you do know, chances are that you are spending money and effort in the wrong place. Make sure of this point.

CAN YOUR STORE PASS THIS EXAMINATION?

	Credit
6—Have you an up to date business system in your store?.....
2—Do you welcome suggestions?.....
6—Do you take an annual inventory?.....
5—Do you figure selling price so as in all cases to guarantee you a profit?.....
5—Can you state definitely what your overhead expense percentage amounts to?.....
5—Have your sales reached a maximum for the expense involved in selling?.....
3—Do you know what lines pay best and which pay least?.....
3—Is your advertising campaign carefully planned ahead?.....
3—Do you push nationally advertised goods?.....
5—Do you discount your bills?.....
3—Do you make special effort to sell the higher priced, more profitable articles?.....
6—Do you turn stock at least four times a year?.....
(Allow 1 for one turn; 2 for two turns; 4 for three turns; 6 for four turns.)	
2—Do you meet your customers personally?.....
5—Do you buy from more sources than necessary?.....
3—Do you neglect departments in the store you are not interested in?.....
4—Are your windows regularly and painstakingly trimmed?.....
5—Do you give prompt courteous service?.....
4—Do you and your clerks study the merchandise you sell?.....
(Do you know how it is made and best talking points?)	
3—Do you make use of the manufacturers' free advertising cuts and other helps?.....
3—Do you belong to a local, state or national association?.....
(Allow one point for each.)	
6—Do you attend the meetings?.....
(Allow 6 for any one association meeting regularly attended.)	
3—Do you read at least three good trade journals?.....
(Allow one point for each.)	
2—Have you a good mailing list?.....
3—Do you use it?.....
5—Do you have co-operation and teamwork in your store?.....
100% TOTAL.....	TOTAL GRADE.....

"Is your advertising campaign carefully planned ahead?" Hit-and-miss advertising usually produces poor results. You can no more build a good house without well prepared plans than you can conduct your business successfully without a well planned advertising campaign.

"Do you push nationally advertised goods?" If you are a progressive merchant and the line pays a fair profit you do. Not all nationally advertised goods are profitable for the merchant.

"Do you discount your bills?" Even the little two per cent off for cash in ten days counts up into quite an amount in the course of a year, and discounted bills help wonderfully when it comes to secure extra concessions and special bargains, which produce additional profits.

"Do you make special efforts to sell the higher priced, more profitable articles?" Of course you do, or you wouldn't be in business. But make sure that your sales people do not follow the line of least resistance. Most persons can be induced to buy the better article if they are told of the real better quality—the why of the better quality.

"Do you turn your stock at least four times a year?" That is a lot, you say, but we know of many a hardware stock that is turned as often as that, and more. But you must buy carefully, in not too large quantities, and be aggressive in your advertising and selling.

"Do you meet your customers personally?" Some hardware dealers we know of have a desk near the door and make a point of greeting every customer who comes in to their store. You will find that it brings direct results in bigger sales every day.

"Do you buy from more sources than necessary?" That, of course, is a matter of judgment, but chances are that you do. By confining your purchases to a smaller number of houses, you will amount to more in their estimation, and that means favors in the way of special bargains, and also a better kept stock. Odds and ends of many lines make for bigger stock than is necessary.

"Do you neglect departments in the store you are not interested in?" Too many dealers will have to answer this question in the affirmative. If you can't take real interest in a line, get rid of it, or study up on it, and you will find something interesting about it—if nothing else, the profit you can make by pushing it.

"Are your windows regularly and painstakingly trimmed?" Haven't time to attend to this matter regularly, you say. You are fooling yourself. If you had a hole in your change pocket would you not take time to have it sewed up? There is big money in well arranged window displays.

"Do you give prompt, courteous service?" Of course you do—except on mornings when you get up with a grouch, or when your lunch does not agree with you. One of the best ways to drive a customer away is to "treat him rough" or to fall down on a delivery when you promise to have it at his home at a certain time.

"Do you and your clerks study the merchandise you sell?" Never buy anything unless you are thoroughly "sold" on the merits of the article, and see that your sales people are "sold" on it, too. Then they can ex-

plain the "why and wherefores" to the customer who wants to know. Many a good sale has been lost because the salesman was not properly posted.

"Do you make use of manufacturer's free advertising cuts and other helps?" This is a case of using judgment again. Some so-called advertising helps are not worth the paper they are printed on but most manufacturers who furnish selling helps spend their money in an intelligent manner for this purpose—and you will increase your sales of their goods if you utilize them properly.

"Do you belong to a local, state or national association?" There isn't a dealer anywhere who can afford not to be affiliated with his trade organization. He will receive far more than he pays out—provided he puts himself into a reciprocal mood. The minds of two good men always work better results in cooperation than singly.

"Do you attend the meetings?" Might really just as well ask you if you ever talk your business over with your wife or your partner or employees. You will learn more by attending a meeting of your fellow business men than you can learn in a year by sailing your own canoe.

"Do you read at least three good trade journals?" Haven't time to read even one, you say. That is not true, really. You only imagine that you haven't time. It is simply a matter of not performing tasks that can just as well be done by somebody else, and even if you have to look after your own bookkeeping and correspondence, there will be many a half hour during the course of the week when you will have leisure to read one or more of the instructive articles that are always found in these papers.

One single suggestion received from the reading of such an article has been known to bring in actual cash returns of more than a thousand extra in one week. There is just as much reason for not reading trade journals as there would be in buying a gross of pocket knives and leaving the box unopened for a year, "because you haven't time" to pull the nails—and then letting customers go to other stores for such goods, because they haven't been put in stock.

"Have you a good mailing list?" By a "good" mailing list, we mean a list that is correct, so far as names and addresses are concerned, plus such information as will help you in selecting groups of prospects for certain lines. For example, there is no reason for sending advertising matter on safety razors to a family in which there are no male persons, nor would there be much use in urging the purchase of a washing machine to a family who is boarding, and so on.

"Do you use it?" We know of a hardware dealer who makes use of his mailing list of approximately 2,500 regularly once a month and he says that he owes a large share of his success to the consistent and regular use he has made of his mailing list—and there are thousands of similar cases.

"Do you have cooperation and team work in your store?" Some dealers claim that they can not get their sales people to take any real interest in their work. In nine cases out of ten, the dealer himself is largely to blame for such a condition—either because he has used poor judgment in engaging his men, or because he has

done nothing to induce them to take any interest in the business, except so far as the pay day is concerned. Consult with your employes when you buy; when you plan a selling campaign; when something of general importance comes up. Let them know that you appreciate their opinions, and let them see that you have their interests at heart, too, by showing your appreciation of such interest and their good work, in some substantial manner. Just paying a salary to a man does not by any means recompense him for the extra interest he may take in your welfare and progress—nor does an employe render full value for his salary simply by spending a stipulated time every week day in the store. He must use his brains and physical energy for the benefit of his employer.

How close do you come to be 100 per cent perfect as a manager of your business?

It will be well worth your while to put yourself through this examination, but you must be fair to yourself and not try to "crib."

And when you go over your credits, make up your mind to improve your rating during the coming year in the spots where you make a poor showing.

It will pay you in real dollars.

Exhibit Stand Makes It Easy to Sell Vises.

The Prentiss Vise Company of New York has determined to bring the humble vise out of darkness and

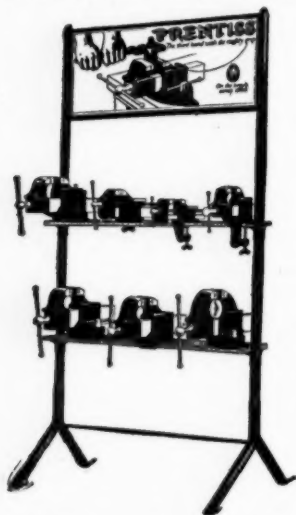


Exhibit Stand of Prentiss Vises, Made by the Prentiss Vise Company, New York City.

was displayed. The fact that customers saw an article, created a desire to buy.

The Prentiss Company believes that new customers and a new demand for vises can be created by a display of their line and to this end are furnishing dealers, free of charge, an exhibit stand of iron, Japan finished, which can be placed in any convenient space in the store. It forms a handsome addition to the store fixtures or can be made a very attractive part of a window display, aside from the important feature of increasing the sale of vises.

The Company has just started an extensive advertising campaign and is furnishing dealers with handsomely colored window and counter cards and is determined to do its full share in aiding the dealers to "move the goods."

into the light to take a place among its more aristocratic brethren of the shelf hardware family.

It is claimed that up to the present, merchants have kept their stock of vises in the cellar or other obscure corners of their stores and that vises have not been "sold" but merely delivered when customers actually called for them.

Woolworth of five and ten cent store fame stated that his enormous business and great success were due largely to his rule that every article he had for sale

The particulars regarding this free stand and other features of this new sales campaign may be had by addressing the Prentiss Vise Company, 107 Lafayette Street, New York City.

Hendrick's Commercial Register Is Big Help to Business.

To hold the same number of names and addresses of manufacturers, trade-names and similar data in separate catalogues and folders as are contained in Hendrick's Commercial Register of the United States for Buyers and Sellers would require an immense filing cabinet and the services of trained clerks.

Even in the most favorable circumstances, it would take a lot of time to find the names of all the manufacturers in the United States who produce a given commodity.

But with the Twenty-ninth Edition of Hendrick's Commercial Register of the United States for Buyers and Sellers it is a matter of only a few seconds to find in the index of trade names or classified trades or alphabetical list of manufacturers the precise information desired upon a multiplicity of subjects.

Hendrick's Commercial Register is truly described as being "indispensable as a buyers' reference for contractors, engineers, exporters, Government departments, jobbers, manufacturers, municipalities, purchasing agents, retailers, architects, etc."

This year the publishers have added a page of directions entitled "How to Find Information," which gives in concise form detailed instructions as to the best way to find the desired information.

For convenience of use, the book is divided into five sections, namely, index to trades, classified trades, trade names, alphabetical and advertisers' index.

Hendrick's Commercial Register contains 2,572 pages. Great care has been experienced in bringing the new volume as close to perfection as possible.

Considering the bigness of the book both from the point of view of actual size and contents as well as from the angle of service, the price at which it sells, namely, \$12.50, is uncommonly reasonable. Copies of Hendrick's Commercial Register of the United States for Buyers and Sellers can be had from the Book Department of AMERICAN ARTISAN AND HARDWARE RECORD upon receipt of aforementioned price.

Automotive Equipment Company Is Incorporated.

With a capital stock of \$50,000, the Peerless Automotive Equipment Company, New York City, has been incorporated by S. A. Burgio, L. Schiavone, and J. F. O'Neil, 662 Park Place, New York.

Special Hardware Corporation Is Organized.

The Special Hardware Corporation has been incorporated with \$12,000 active capital stock by C. Chaumont, J. Gunn, and A. L. Rose, 562 West 149th Street, Brooklyn, New York.

Industry pays debts, while despair increases them.—Benjamin Franklin.

Vise and Tool Company Changes Name.

Because its production has expanded along lines calling for drop forgings as a basic material, the Bonney Vise and Tool Works, Incorporated, Allentown, Pennsylvania, has changed its corporate title to Bonney Forge and Tool Works.

The necessity for careful work in the manufacture of forgings for wrenches and other tools brought with it the development of custom forging and the company wishes to emphasize this feature by its change of name.

Who Manufactures the Majestic Electric Flat Iron.

Please inform me where the Majestic electric flat iron is manufactured.

C. A. RINGQUIST.

Ireton, Iowa, March 22, 1921.

Trade Opportunities in Foreign Lands.

The Bureau of Foreign and Domestic Commerce through its Special Agents, Consular Officers and Commercial Attachés, is receiving information of opportunities to sell hardware and kindred lines in several foreign countries. Names and locations will be supplied on request to the Bureau in Washington or its District Offices. Such requests should be made on separate sheets for each opportunity, stating the number as given herewith:

34523.—A commercial agent in Poland desires to secure the representation of firms for the sale of agricultural implements, and enameled kitchen utensils. References.

34542.—A company of manufacturers and importers in India desires to be placed in connection with firms for the importation of hardware, tools, glassware, electrical goods, bicycles and motor cycles, stoves, toys, novelties, and any class of articles suitable for the Indian market. References.

34553.—A firm in Italy desires to secure an agency for the sale of automobile accessories, vacuum cleaners, electrical household appliances, etc. Quotations should be given c. i. f. Italian port. Correspondence should be in French or Italian. References.

34557.—A manufacturer's representative from Venezuela is in the United States and desires to secure an agency for the sale of enamel ware and tools. References.

34562.—An inquiry has been received by a consul in Rumania for descriptive literature and catalogues for orders on a commission basis of door locks, knobs, window fasteners, light switches, light brackets, bathroom fittings, door hinges, etc., suitable for large apartment houses. Quotations should be given c. i. f. Rumanian port. Catalogues in French or German are preferred, but English will do.

34565.—A mercantile firm in South Africa desires to secure an agency for the sale on commission of hardware and household utensils. Quotations should be given f. o. b. American port. Payment to be made through American commission houses. References.

34569.—A wholesale hardware dealer in Poland desires to be placed in communication with manufacturers of sundry hardware. Quotations should be given c. i. f. Polish port. References.

Coming Conventions.

Sheet Metal Contractors' Association of Illinois, Quincy, Illinois, April 6 and 7, 1921. Frank I. Eynatten, Secretary, 1317 South Washington street, Peoria, Illinois.

Western Warm Air Furnace and Supply Association, Sioux City, Iowa, May, 1921. John M. Hussie, Secretary, Omaha, Nebraska.

Panhandle Hardware and Implement Association, Amarillo, Texas, May 8, 9 and 10, 1921. C. L. Thompson, Secretary-Treasurer, Canyon, Texas.

Stove Founders' National Defense Association, Hotel Astor, New York City, May 10, 1921. R. W. Sloan, Secretary, 826 Conwell Building, Scranton, Pennsylvania.

National Association of Stove Manufacturers, Hotel Astor, New York City, May 11 and 12, 1921. Robert S. Wood, Secretary, National State Bank Building, Troy, New York.

Hardware Association of the Carolinas, Charlotte, North Carolina, May 10, 11, 12 and 13, 1921. T. W. Dixon, Secretary-Treasurer, Charlotte, North Carolina.

Iowa Sheet Metal Contractors' Association, Savery Hotel, Des Moines, Iowa, May 11 and 12, 1921. R. E. Pauley, Secretary, Mason City, Iowa.

American Hardware Manufacturers' Association, Marlborough-Blenheim Hotel, Atlantic City, New Jersey, May 11, 12, 13, 1921. F. D. Mitchell, Secretary-Treasurer, 4106 Woolworth Building, New York City.

Old Guard Southern Hardware Salesmen's Association, Marlborough-Blenheim Hotel, Atlantic City, New Jersey, May 12, 1921. R. P. Boyd, Secretary-Treasurer, Box 19, Rural Free Delivery Number 4, Knoxville, Tennessee.

Southern Hardware Jobbers' Association, Marlborough-Blenheim Hotel, Atlantic City, New Jersey, May 11, 12, 13, 1921. John Donnan, Secretary-Treasurer, Richmond, Virginia.

Southeastern Retail Hardware and Implement Association (composed of Alabama, Florida, Georgia and Tennessee), Atlanta, Georgia, May 17, 18, 19 and 20, 1921. Walter Harlan, Secretary, 701 Grand Theater Building, Atlanta, Georgia.

National Warm Air Heating and Ventilating Association, Cleveland, Ohio, May 23 and 24, 1921. Allen W. Williams, Secretary, Columbia Building, Columbus, Ohio.

Metal Branch of the National Hardware Association, Hotel Cleveland, Cleveland, Ohio, June 3 and 4, 1921. George A. Fernley, Secretary, Philadelphia, Pennsylvania.

Mississippi Retail Hardware and Implement Association, Great Southern Hotel, Gulfport, Mississippi, June 14, 15, and 16, 1921. E. R. Gross, Secretary, Agricultural College, Mississippi.

National Association of Sheet Metal Contractors, Fort Pitt Hotel, Pittsburgh, Pennsylvania, June 14, 15, 16, and 17, 1921. Edwin L. Seabrook, Secretary, 261 South Fourth Street Philadelphia, Pennsylvania.

Sheet Metal Contractors' Association of Ohio, Hotel Gibbons, Dayton, Ohio, July 19, 20, and 21, 1920. William J. Kaiser, Secretary, 123 East Chestnut Street, Columbus, Ohio.

Retail Hardware Doings.

Illinois.

Robert Sweetman of Armington has sold his hardware business to W. C. Darnall of Bloomington.

Kansas.

Wendell Phillips has purchased the hardware stock of Wallace Rankin at Chanute.

Minnesota.

A. R. Bullert has become the owner of the J. B. Jasken property and hardware stock on Main Street, Arlington.

John W. Johnson has purchased the interest of Frank Turk in the Turk Hardware Company at Pipestone.

J. L. Wenner of Wheaton has purchased the hardware stock of C. E. Falk Company at Buffalo.

M. G. Winter has become interested with J. A. Lynch in the hardware and implement business at Foreston.

Albert W. Warnke has opened a hardware and tin shop in the Sylvester Building on Main Street at Gaylord.

Missouri.

The Albany Hardware Company of Albany has leased the ground floor store room and basement of the Odd Fellow building and have moved its stock of implements there.

H. E. Otto has traded his hardware stock to Wayne J. Houghton for a two hundred acre farm at Kingston.

New York.

Ford Pulley and Hardware Company have changed their firm name to Ford Hardware Company at Manhattan.

North Dakota.

Axel Nelson is having his building on Third Avenue remodeled and as soon as the work is completed expects to open with a stock of hardware in addition to his jewelry business at Enderlin.

Carl Andersen has put in a small stock of staple hardware and tinware in connection with his plumbing and heating establishment at Velva.

Seidel and Sons, hardware dealers, are planning to enlarge their present quarters at Solen.

South Dakota.

Riley hardware store was sold to H. C. Wells and Frank Packy McLaughlin at Doland.

Wisconsin.

L. H. Meyers has sold his hardware stock at Dorchester.

Advertising Help and Comment

Send Us Copies of Your Advertisements. Let Us Help You Get Bigger Results by Advice and Suggestions. The Service Is Free. Don't Hesitate to Take Advantage of It.

The original of the Finch Hardware Company's advertisement took up a space 6 by 4 inches in the *Jackson Patriot*, Jackson, Michigan.

A clear idea of its design, emphasis, and arrangement can be had from the reproduction shown here-with in reduced size.

Two commodities are featured and prices are given in big, readable type.

No verbal descriptions are necessary in either case.

Jackson, Michigan, is a trading

advertisement helps carry out the statement that it is easy to brighten up around the home.

The reader is sure to be impressed by the statement in bold face

McGowan Bros. Hardware



Brighten Up Around Home
It's Easy
With Sherwin-Williams FLOORLAC You Can

Varnish and Stain at the Same Time

The old method of staining first, waiting for the stain to dry—and then varnishing afterwards is away out of date. It's the old way—the slow way—the hard way. With

Sherwin-Williams FLOORLAC

you accomplish both—staining and varnishing—with one stroke of the brush. Takes only half the time and only half the effort. Accomplishes remarkable results. Try it on that old kitchen chair.

The Coupon and 10c

Entitle You to
One ¼ pint can of Floorlac, worth 30c
One good varnish brush, worth 15c
Total value 45c


Get yours—and brighten up that old cupboard, kitchen chair, table, rocker, or cabinet. Any shade—light oak, golden oak, dark oak, green, walnut, light mahogany and dark mahogany.

Clip the coupon now—this offer may be withdrawn Saturday night. Fill in the dotted lines below and

BRING THIS COUPON TO MCGOWAN BROS.
Corner Sprague and Wall

Name
Address
Town

This coupon and 10c entitle bearer to ¼-pint can of Floorlac and one varnish brush. (Only one of each to each customer.)




type, "Varnish and Paint at the Same Time," and to appreciate the saving of time over the old method of staining first and waiting for the stain to dry before varnishing.

* * *

Any device of print or drawing which arrests attention long enough to place it upon the wording of an advertisement is worthy of careful consideration.

The cartoon in the Central Hardware Store's advertisement, reproduced herewith from the *Elwood Leader*, Elwood, Indiana, serves the

purpose of directing notice to the text.

For that reason it is effective, without regard to any argument for or against its style or technique.

The only fault in the make-up of this copy which occupied a space 6½ by 4½ inches in the original is the use of all capital letters.

This weakens the copy from the point of view of ease of reading.

Laboratory tests have proved that it is harder to hold the attention when all capital letters are used

SATURDAY SPECIALS

DOUBLE BOILERS 
\$2.50 value. Special full 2 quart size **\$1.29**

LAMPS
40 and 50 Watt
29c Each
\$1.45 Per Box

Finch Hardware Co.

center for a fairly prosperous farming district.

Therefore, the Finch Hardware Company should give its street address in all its advertisements for the convenience and guidance of out-of-town purchasers.

* * *

Here is an advertisement which talks in everyday style.

It appeared in the *Spokane Chronicle*, Spokane, Washington.

The McGowan Brothers Hardware Company knows how to tell a merchandizing story in a way to rivet attention.

The words are simple, but the story is as clear as crystal. It has the big value of showing advantages for the customer.

The illustration at the top of the

ARE YOU GOING TO BUILD? BUILDER'S HARDWARE IS OUR LONG SUIT



COME IN AND LET US FIGURE WITH YOU ON THAT BILL OF BUILDERS' HARDWARE YOU ARE GOING TO NEED

OUR BUILDERS' HARDWARE HAS THE "LOOKS" AND IT WILL STAND THE STRAIN. YOU ONLY NEED TO SEE IT AND PRICE IT TO BUY IT. USE IT AND YOU WILL FIND IT GOOD.

OUR CARPENTERS' TOOLS ARE A JOY TO USE. TRY THEM ONCE THAT'S ALL WE ASK.

OUR HARDWARE WEARS.

Central Hardware Store

in the formation of words and sentences than when "caps and lower case" letters are employed.

* * *

Read the Other Fellow's Advertisements.

A good way to test the merit of your advertising is to read the other fellow's advertisement.

Make notes of the way that you are affected by them.

Ask yourself how they impress you.

Would you buy the article advertised as a result of reading the price and description?

Do you feel that the wording of the advertisement is sincere?

Does it possess any personal touches?

Is it friendly?

Warm Air Heating and Ventilating

*Better Installations. How to Sell More Warm Air Heaters.
Reports of Progress in Warm Air Heater Research Work.
Ventilating Factories, Garages, Theaters, and Houses.*

SHOWS THAT HUMIDITY IS NEEDFUL FOR HEALTH.

Heat in itself is not so injurious to us as is dryness, especially when we are subject to such extreme differences of humidity when passing from the arid air of indoors to the moist outside atmosphere, declares S. K. Pearson, Jr., Cooperative Observer, United States Weather Bureau.

Our chief object, then, should be to increase as much as possible the humidity indoors, so that the difference will be reduced from that of outdoors. This is what will further reduce our coal bills, because as we increase the moisture we do not require such a high temperature to keep us comfortable.

In other words, if we can evaporate enough water in our homes to raise the relative humidity to 50 to 75 per cent, we can lower the temperature to 65 and feel more comfortable than we did at 70 or 75 with the relative humidity at perhaps 30 or lower.

There is one undesirable condition, however, of indoor moisture during cold weather, and that is, that it produces considerable condensation on windows in the form of ice when it is very cold.

We are all quite familiar with the fact that our bodies in a healthful state continually throw off moisture through our skin in the form of perspiration, and that dry, warm air produces evaporation of moisture.

It is an evaporation of moisture from our bodies in a dry indoor atmosphere that lowers the temperature of our skin, so that we do not feel the heat which we are actually breathing into our lungs and consequently there is no warning of its ill effect. A warning of the dryness, however, is really indicated by our desire for more heat, even though a room may have a temperature of 75 or higher.

By relative humidity is meant the relation of the amount of moisture present to the amount necessary completely to saturate the air. As the atmosphere expands with an increase of heat, its capacity becomes greater for holding moisture, and with an increase of cold, it naturally becomes less, so that if the air contains 50 per cent of moisture and the temperature rises, the percentage of moisture would become less, and should the temperature fall the percentage would become greater.

The instrument used for indicating the amount of relative humidity in the atmosphere is called a hygrometer. Although such an instrument is more expensive than the thermometer, its cost will be many times repaid during a winter in coal saved by its careful and intelligent use.

Experiment tests during forty days by the weather bureau in a ventilated office heated by steam with an average temperature of 72, revealed that the average

relative humidity was as low as 23 per cent, which is as dry as that of Death Valley, California.

Atmospheric conditions in but few houses are better than was found at the above mentioned office, and undoubtedly only a small percentage are as favorable.

But worst of all is the fact that the average person spending most of his time indoors does not realize his susceptibility to disease. If he knows by reading his thermometer and hygrometer the temperature and humidity of the air in his house, he can increase or reduce the elements at his pleasure and not only feel comfortable, but know that he is breathing the proper air.

During the winter months throughout the eastern portion of the United States the external humidity averages over 70 per cent, and it is safe to assume that the average humidity in our homes and offices during that season when they are artificially heated is less than 30 per cent, or over 40 per cent less than the outside relative humidity.

When the relative humidity becomes as low as 23 per cent in our houses, the evaporation is very rapid and we are advised by physicians that the tissues and delicate membranes of the respiratory tract are subjected to this drying process, an increase of work is forced upon the mucous glands to keep the membranes in proper condition, so that Nature, in her effort to replenish the deficiency of moisture in the air, is obliged to increase the working of the glands.

This increase of activity and the frequent unnatural stimulation, influenced by the external air to the arid indoors, finally results in an enlargement of the gland tissues.

The membrane itself becomes thickened and harsh and the surface is in condition for the admission of the germs of disease which may develop if exposure to the constant changes of humidity is continued.

Catarrhal troubles have been apparently cured or relieved by increasing the relative humidity internally so that it would be nearer uniform with that of the outdoor atmosphere.

Noted physicians tell us that "pneumonia takes a little more than one out of eight. Man is a marine animal, seven-eighths water. He needs cool and moist air around him. Overheated dry air makes him too susceptible to disease.

"It is difficult for people to exist healthfully in a temperature indoors over 68. Fresh, cool, moist air is the foe of pneumonia."

Experienced engineers claim that about one-quarter of the cost of heating a building is expended in raising the temperature from 60 to 70 degrees. To be conservative, our rooms could be heated to 65 degrees with a relative humidity of 50 per cent, which would save about one-eighth of the fuel that it would require to heat at 70 degrees and at the same time it would

avoid the possibility of any great amount of condensation on the windows.

There are several practical methods of increasing humidity in our homes, as we can not depend entirely upon admitting enough fresh, moisture-laden air from without, because cold air entering a room soon becomes heated and reaches a temperature where it can readily hold much more moisture.

Furnaces containing reservoirs should always be replenished with water so as to produce a continuous evaporation mingling moisture with the heat. Flat pans of water placed on top of radiators of steam and hot water heating will also materially increase the humidity.

A tea kettle kept boiling, thereby producing steam, will solve the problem in the kitchen.

Placing wet cloths over a radiator or hot air shaft will quickly result in a rise in the humidity, but such cloths should be kept moist, as the drying process is rapid.

The average housekeeper, however, who would rather suffer the consequences of a dry atmosphere than to be troubled with these devices and methods of evaporating water—which it must be admitted are not decorative to the home—is committing not only an economic but a hygienic error.

Tells Why Men Fail.

Many years ago Bradstreet's Journal established statistically the fact that business success or failure is largely personal—in other words, that the individual himself is chiefly responsible for failure to succeed.

In 1918 the proportion of failure credited to causes which are classed as originating within the individual himself rose to its highest point, 86 per cent, while outside influences were credited with causing 14 per cent.

The 1919 returns were almost identical with this, 85.9 per cent being credited to the individual and 14.1 per cent to all other causes.

In 1920 the proportion due to personal causes fell to 83.1, but even this was higher than in any year prior to 1917.

The past four years, indeed, seem to have been in a class by themselves as regards this feature, no other year in the preceding twenty-seven showing a higher proportion than 82.3 per cent.

To fully understand the above statement, it will be advisable to examine Bradstreet's groupings of the causes of failure proceeding from or inherent in the individual as compared with those outside his control:

A—Due to faults of those failing:

- Incompetence (irrespective of other causes).
- Inexperienced (without other incompetence).
- Lack of capital.
- Unwise credits.
- Speculation (outside regular business).
- Neglect of business (due to doubtful habits).
- Personal extravagance.
- Fraudulent disposition of property.

B—Not due to faults of those failing:

- Specific conditions (disaster, war, floods, etc.).
- Failures of others (of apparently solvent debtors).
- Competition.

Don't Let Customers Go Away Dissatisfied.

The resolve never to let a customer leave his shop dissatisfied is the most important determination which a sheet metal contractor can take and carry into effect.

In no other way can the mysterious and indispensable thing called "good will" be acquired.

All the activities of a shop, all its merchandising devices, all its displays of goods—no matter how attractively arranged—are foredoomed to failure if the patrons of the establishment are not given satisfaction.

In other words, the service must be intelligently devised and the quality of the commodities adapted to the needs of the buyers.

From proprietors to errand boy, everyone connected with the shop must learn that their success depends upon giving satisfaction.

They must take a pleasure in giving satisfaction—otherwise they can not give it.

Indeed, if they do not derive pleasure from giving satisfaction to the customer, they are in the wrong line of business; and the sooner they get out of it the better for themselves and the public.

Advertising Is Least Expensive Form of Salesmanship.

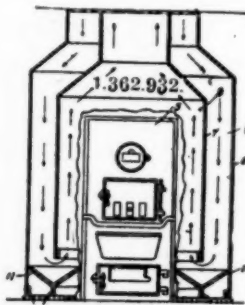
To send a man around to canvass for your goods to people who read the local newspaper would cost a hundred times as much as the price of an advertisement in the newspaper.

The canvasser would not get as good results as the advertisement in the newspaper brings. He probably would find half his "prospects" out. Three-fourths of the rest would give him no serious attention, because when he called they would be busy with other matters.

The newspaper is picked up when people are at leisure. They read its advertising almost as carefully as any part of the paper, and what the merchant says is given thoughtful consideration.

Obtains Patent for Water Pan for Hot Air Furnaces.

Ernest Elmer Engleman, Roanoke, Virginia, has procured United States patent rights, under number 1,362,932, for a water pan for hot air furnaces described as follows:



An air heating furnace comprising a combustion chamber, an air circulating chamber surrounding the same, and a water pan in the lower portion of the air circulating chamber and comprising an elongated trough having a bottom that inclines downwardly, means extending to the outside of the chamber for supplying liquid to the higher portion of the pan, and means connected to the lower portion of the pan for drawing off the contents thereof to permit the flushing of said trough.

Practical Helps for Tinsmiths

No Two Jobs Are Exactly Alike. Therefore, the Sheet Metal Worker Has to Meet Each Difficulty as It Comes. Send Your Problems to Us. Let Our Experts Help You.

PATTERNS FOR A SLOPING INCLINED HOPPER.

By O.W. Kothe, Principal St. Louis Technical Institute and Instructor in the David Rankin, Jr., School of Mechanical Trades, St. Louis, Missouri. Written especially for American Artisan and Hardware Record.

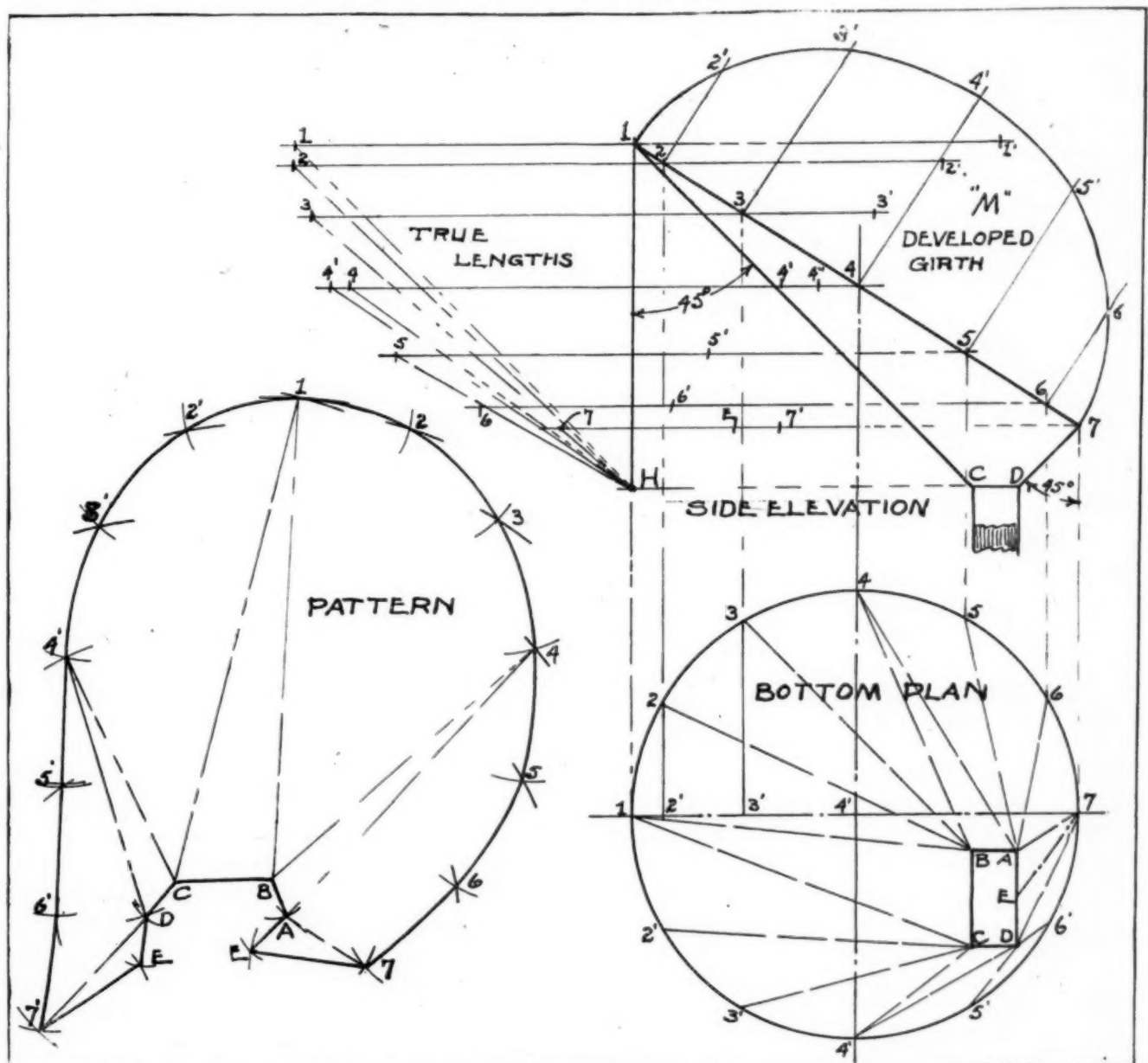
The hopper drawn for Mr. J. M. Campbell of Lincoln, Nebraska, some time ago, was not just what the

set the rectangle base A-B-C-D to the position measurements direct.

After this treat the circle in equal spaces, and draw lines to the corner of rectangle as shown.

Then erect the elevation, making the line 1-C on a 45 degree angle to 1-H, and fill in the slant line 1-7 to whatever slope your measurements direct.

This is the only slant line we need, and is used to obtain the various altitudinal points in connection with the true lengths.



Patterns for a Sloping Inclined Hopper.

correspondent wanted, so a more perfected sketch was submitted, and so here is the layout for it.

The first step is to draw the plan, setting the square axis lines and describing the circle to suit the size of cylinder, or 64 inches in diameter in this case. Next,

So from each point in circle of plan, erect a line into slope line 1-7 of elevation as 2-3-4-5-6. Then from each of these points square over horizontal lines past the vertical line H-I, which is the set line for the diagram of true lengths.

Observe the plan lines represent base lines, and, therefore, we pick each line separately as B-1; B-2; B-3; B-4; 4-A; A-5; A-6; A-7 from plan and set them on similar numbered lines over from H-1, which gives points 1-2-3-4-5-6 in true lengths. Draw lines to point H and you have the true lengths for the upper part of plan.

In the same way, pick the lower lines of plan as C-1; C-2'; C-3', etc., and set them on similar numbered line to the right of H-1 in diagram. This gives points 1'-2'-3'-4', etc.

When lines are drawn to point H you have the true lengths. In this case lines are not joined as the points are all we want.

Before the pattern can be set out, we must find the true girth along the slope line 1-7 of elevation, since the girth along this line is considerable longer than the circumference of the circle in plan.

To do this, square out right angle lines from each point as 2-3-4-5-6 in elevation, and with dividers pick the half diameter lines from plan as 4'-4; 3'-3; 2'-2, and set them as 2-2'; 6-6'; 3-3'; 5-5'; 4-4' in elevation at "M."

Then through these points as 12'-3'-4', etc., sketch a uniform curve, and you have the desired girth.

Now to set out the pattern, we proceed exactly as was explained for the former drawing where the top line was horizontal.

In this case we start by drawing a line as B-C, equal to B-C of plan. Then with true length lines H-1 and H-1', we strike and cross arcs as in point 1 of pattern.

After this for the girth spaces we use those spaces from "M" in numerical order, and developing each point as we go along.

In this case we place the seam in the throat, but this can be set where desired. And the pattern can be set out in as many pieces as desired for convenient assembling. Laps must be allowed extra.

Reports Activities of Michigan Sheet Metal Locals.

The development of the Michigan Sheet Metal Contractors' Association has reached a stage where it requires the entire attention of Secretary Frank E. Ederle. He is now devoting all his time to the work of the organization.

We are indebted to Secretary Ederle for the following report of the activities of Michigan Locals:

Homer Brundage, Secretary of the Kalamazoo Sheet Metal Contractors' Association, reports that at their Monday night, March 14th, meeting the following officers were elected to serve during the coming year:

President, R. A. Sprague; Vice-president C. E. Shroyer; Treasurer, Anton Meulenberg; Secretary, Homer Brundage.

At this meeting plans were discussed for holding a district meeting of the State Association when delegates from southern Michigan, including Grand Rapids and Battle Creek, will be invited.

Talks will be given by R. C. Mahon, Vice-president of the State Association, and Ray O. Brundage, Secretary of the State Building Contractors' Association.

This will be the first of a series of meetings of this character which will be held throughout the state to

increase the efficiency of the organization. The date of this affair will be announced next week.

The banquet and smoker which was given by the Grand Rapids Heating Contractors' Association to all sheet metal dealers and traveling men in their club rooms on Friday night, March 18th, was attended by about thirty-five.

The dinner—and it was a real one—was prepared by Evart Stadt, John Sweet, Isaac Lammers and Frank Oole. It is strongly suspected that Mrs. Stadt superintended the preparation of the meal but Evart declares not.

The object of the meeting was to consider plans for the entertainment of the State Association at the Summer Outing.

Many suggestions were offered for this event but no definite action was taken except to elect Charles Heth general chairman.

Mr. Heth will have the appointment of all committees which is to be reported at the next meeting, Tuesday night, April 4th. This meeting will be of a general character including all sheet metal dealers and traveling men.

Pittsburgh Sheet Metal Local Exchanges Visits.

Carrying out the National Association program of exchanging visits, the Sheet Metal Contractors' Association of Pittsburgh and Vicinity, entertained eight members of the Beaver Valley, Pennsylvania, Local, Friday evening, March 18th, as follows: Messrs. Osenbaugh, Leiberman, Lawrence, Mytinger, Fry, Collar, Jackson, and Davidson.

The same evening the Pittsburgh Local also had as guests Mr. Viertel of the Hoyt Hard Lead Company; Mr. Scott of the Empire Varnish Company, Cleveland, Ohio; Mr. Barber of the Barber Manufacturing Company, Ashtabula, Ohio; State Director A. R. Hoffman of Sharon; and William Sanders of New Kensington, Pennsylvania.

W. F. Angermyer, Secretary Sheet Metal Contractors' Association of Pittsburgh and Vicinity, visited New Kensington and Tarentum March 11th, McKeesport, March 15th, Wilmerding, Irwin, Jeannette and Greensburg, March 17th, and Butler, March 18th.

The Pittsburgh Local will visit Beaver Valley, Sharon, New Castle, and Washington, Pennsylvania, locals early in April.

Peoria Sheet Metal Contractors to Travel in Special Car to Quincy.

The Sheet Metal Contractors' Association of Peoria, Illinois, have made arrangements to travel in a body to the State Convention which is to be held at Quincy, Illinois, Wednesday and Thursday, April 6th and 7th.

They have chartered a Pullman sleeper which will leave Peoria Tuesday evening at 7:15 and arrive at Quincy about 1 a. m. Wednesday and which will be held for their return trip.

It is understood that accommodations can be made for a few sheet metal contractors from neighboring cities, and those who may wish to join in the party may write to Rudolph Jobst, 231 Eton Street, Peoria, Illinois.

Jack Bowler Went to the Doctor for Medicine, but What He Really Needed Was an Interesting Hobby.

It Is Bad for the Nerves and Bad for Health and Disposition To Get Into a Groove and to Keep Going Along in the Same Rut.

Written Especially for AMERICAN ARTISAN AND HARDWARE RECORD by J. C. Greenberg
Peoria, Illinois.

(Copyright, 1921, by J. C. Greenberg.)

I was too far away from home to run in for Sunday so I was forced to spend Sunday in a fair sized town in Michigan. Shortly after lunch I took a stroll and met my friend Jack Bowler who invited me to go with him.

"Where are we going?" I asked him.

"Oh, just come along," he answered. "I am going up to see the doctor for a few minutes. I'm just feeling punk, and want to know what ails me!"

Now I have known Jack for several years, and never knew him to feel sick enough to see a doctor. Not even when we were wet. It seemed that nothing could make Jack sick. This is what made me inquisitive and I asked, "What is it that bothers you? Is it a pain of some kind, or are you just under the weather?"

"That's where the funny part of it is," Jack explained. "I have no pains nor aches. My teeth are in good shape and I am as hard as nails. I just don't feel 'all there' somehow."

"Have you been worrying about business?" I asked. "Are you smoking too hard?"

"No." He answered. "I cut out smoking three months ago, and I don't owe a cent in my business. The doctor's office is just round the corner, and I guess he will put me right."

I was not present at the consultation, but waited for Jack in the reception room for about fifteen minutes; and as soon as Jack came out, we went to his home to pass the afternoon.

Mrs. Bowler met us at the door with a smiling welcome, and took our coats and hats. Soon we were all seated comfortably and willing to hear what the doctor told Jack.

Mrs. Bowler was the first to speak. With her usual smile, she asked Jack what the doctor told him.

"Well," Jack answered, "he did not say very much. He thumped me, and listened to my heart; felt my pulse; looked at my tongue; took my blood pressure and said I was O. K. He did not even give me any

medicine."

"That is good news Jack," Mrs. Bowler remarked. "I guess the doctor knows a sick man when he sees one."

"You're wrong," Jack corrected. "So is the doctor. I am not O. K. Don't you suppose I know when I feel something is wrong? Tomorrow I am going to see Dr. Gilbert. If he says I am O. K., then I am crazy. I'm not well, and that is all there is to it, and I'm

going to see what is the matter with me."

Jack's last remark set me thinking. That there was something wrong I was sure. But it was not a physical ailment. Jack was getting worn out. Too much work and no play was all that was wrong with him. So acting on this idea I said to him, "Jack, what do you do after work every day?"

"Nothing," he answered. "What should I do after work? Don't you think work is enough for any man? I'm only too glad when the day is over so I can get my slippers and take a rest."

"Well Jack," I ventured to say, "I can tell you what ails you. If you will do as I suggest, you will be a new man in a few weeks. Are you game to take a little advice from a friend?"

"Sure I am willing to take advice if there is some common sense to it," Jack answered. "I don't know it all, and if you can set me right I'll be mighty glad of it."

At this point Mrs. Bowler was all attention, too, but did not venture to say anything.

"Jack," I proceeded, "you are too much in your work. You are brain-tired. You get up in the morning, eat breakfast, and hike to the shop. You come home, eat supper, and go to bed. You have done this every day for many months. Your brain is lonesome for a change. Your present feeling of dissatisfaction is the warning that your brain is giving you. It is making a plea for a change."

"Now before you go any farther," he said irritably, "do not give me any dope about a vacation. I can't go

A harmless hobby has cured more dissatisfied men than medicine has. Ask any doctor. If you are in Jack's boat, consider this advice. Think it over.

Choose something to interest you, and go to it with pep. You will be a better and brighter business man.

I fully believe that if the inmates in a prison were given their pet hobbies, it would be a pleasure to be in prison. It is the same old compulsory grind that makes prison hateful.

We business men are all big kids, and we need play. A big kid without play soon gets into mischief, and gets in wrong with his brain and his nerves. Get your pet hobby. If you have none, get one. It's worth while.

away, and besides I can't afford to leave my business and go away to look up some nice scenery. So if this is what is on your mind, please forget it."

"No, nothing like that," I assured him. "What I mean is that you are not feeding your brain the right kind of food. Suppose your good wife was to feed you on corned beef and cabbage every day for months and months, what would you do?"

"I'd change my address I guess," he answered smiling, looking at Mrs. Bowler.

"And you would be absolutely right in doing so," I agreed. "Now, this is just what you are doing to your brain, only your brain can not change its address. Do you get me, Jack? When your brain does not get the right change of 'scenery', it becomes tired and stale. A stale brain makes a stale man, and a stale man does not feel happy. You are unhappy because your brain is stale. Too much sameness. Too much sheet metal shop. Too much of one thing all the time. You are traveling around in a ring which begins with the shop and ends in bed at night."

"You may be right about this, but I can not help myself," he asserted.

"Oh yes you can, Jack," I assured him. "Get some kind of hobby to relax your brain. Give your brain a chance to play tag with itself. Give yourself a new interest which will add pleasure to yourself. Crowd out the tin shop noises and sights when you get home at night, and replace them with something foolish and playful. Get some kind of a hobby to occupy your spare time. This will give your brain and nerves a chance to rest up, and give you enjoyment."

"I just don't quite get you," he said. "Just what do you mean by a hobby?"

"A hobby," I explained, "is a pet idea. It is something that you love best next to your regular business. Get something to occupy your mind after work which will make you feel good—that will make you laugh."

"Just what would you suggest?" Mrs. Bowler asked. "I can see that you have a good idea, but it seems to get away from me."

"It is hard to suggest play for a grown man," I admitted, "but Jack being in the sheet metal business, I would suggest Art Metal for a pastime only. Art Metal work is interesting and useful as well as artistic. It will arouse interest and pride, and will give great satisfaction as he improves in its doing. This is one thing I can suggest, and should be done only at home."

Jack smiled and said, "Go on, suggest something else."

"Then," I continued, "there is photography. Get a cheap camera and see how many beautiful pictures you can produce. The chemistry of photography is intensely interesting, and the pictures will last forever almost."

"Oh a camera!" Mrs. Bowler exclaimed. "That is just the thing. Just look at the fun we could have with it."

"Then," I went on, "there is lots of interest in an incubator. Make your own chickens. Baby chicks are nearly as interesting as children. Mrs. Bowler could also interest herself, and you could both have a barrel of fun and eat the fun afterward. You must study this like everything else. Everything has a science to

it. If you try to raise chickens in an incubator by guess, you will not have any fun. There is a number of things a fellow can do to have good wholesome recreation at home which will make him happy. Get some kind of a hobby Jack, and forget the doctor."

"That is all very easy to talk about," he protested, "but when you get right down to facts, it is not practical. Just look at my hands. Do you suppose I could produce a piece of fine art metal? Do you suppose that with my clumsy hands I could handle the chemicals in picture making? Do you think I have the patience to raise chickens? You do make me laugh."

"Listen to me Jack," I insisted. "You are talking foolishness. What has clumsy hands to do with it? All you want is a little determination. Anybody with fine shaped fingers and artistic temperament who knows art metal work can do it. There is no trick to it then. But take it in your own case, if you develop the knack, it will truly be a trick and a true hobby. See what I mean? Learn to do the things you think you can not do, and show the world it is possible. That is a hobby, indeed. All you say now is only an alibi. You do not want to do it."

"Right," he said quickly. "I do not want to take art metal work, but I do want chickens. Dogged if I don't buy an incubator tomorrow and send it home. What do say wifey?"

Mrs. Bowler was a true woman. She went him one better by saying, "Why buy an incubator? Make one. You have the material and the tools."

Jack was all enthusiasm. He began to think hard. The idea was quite feasible. After a moment of silence, he said, "That's right. I can make an incubator. I'll just work at it at home evenings and as soon as it is done, we will start our chicken factory. I really believe that this hobby stuff will do both of us a lot of good. Gee! Won't we have a lot of fun with the little fluffy chicks? I just can't wait till the blamed thing is finished so we can put the eggs into it."

Both Mrs. Bowler and myself could not help laughing at Jack's enthusiasm. It was truly refreshing. He did not seem sick any more. The very idea of looking forward to something different, seemed to stimulate him. He realized that all he needed was play and plenty of it. As soon as his brain has company it will again be happy, and serve him well.

Wants Pattern for Single Spiral Open Type Conveyor.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

I would like drawing showing how to lay out pattern for single spiral open type conveyor with supporting core. Size of core eight inches; size of conveyor twenty-four inches wide, height of conveyor seventy-five inches from top to landing at bottom. The conveyor is to go once and a quarter around in the seventy-five inches.

Yours truly,

J. H. BARNETT.

Dodge City, Kansas, March 23, 1921.

Advertising is the science of being believed. Advertising is the selection of words and the picking out of actions which make people believe.

Wisconsin Sheet Metal Auxiliary Re-elects Officers.

The first annual meeting of the Traveling Salesmen's Auxiliary of the Wisconsin Sheet Metal Contractors' Association was held Friday, March 18th, at the Republican House, Milwaukee.

President E. C. Taylor, of the Rudy Furnace Company, called the meeting to order, and the reports of the Secretary and Treasurer were read, showing that after all expenses of the Convention of the Sheet Metal Contractors were paid there was a fine balance on hand with which to work during the coming year. The roll showed a membership of nearly 75, of which about ten were added during the past week.

Ralph W. Blanchard, of the Hart & Cooley Company, was then called upon for his report on "By-Laws and Constitution." With minor changes, the report was adopted, and thus the Auxiliary is now a regularly constituted organization.

In accordance with the by-laws, two new officers were created—those of Second Vice-president and of Sergeant-at-Arms.

J. Harvey Manny, of the Manny Heating Supply Company, was elected Second Vice-president, and George Carr, of the Carr Supply Company, was chosen Sergeant-at-Arms.

On motion by Ralph Blanchard, seconded by A. G. Pedersen, of AMERICAN ARTISAN AND HARDWARE RECORD, the officers elected at the February meeting, when the Auxiliary was organized, were re-elected unanimously, so that the roster of officers is as follows:

President—E. C. Taylor, of the Rudy Furnace Company, Dowagiac, Michigan.

First Vice-president—J. W. Black, of the Wheeling Corrugating Company, Wheeling, West Virginia.

Second Vice-president—J. Harvey Manny, of the Manny Heating Supply Company, Chicago, Illinois.

Treasurer—Ellsworth C. Dunning, of Dunning Heating Supply Company, Milwaukee, Wisconsin.

Secretary—Huntley H. Wherry, of Follansbee Brothers Company, Pittsburgh, Pennsylvania.

The Auxiliary has already shown its ability to do things, for the manner in which the entertainment was planned and carried out for the Convention of the Sheet Metal Contractors' Association was highly commended and the officers have reason to congratulate themselves.

Traveling salesmen calling on the sheet metal, warm air heating and ventilating contractors in Wisconsin are eligible to membership. Dues are \$5.00 a year.

Gets Advertising Suggestions from American Artisan.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

As a sequel to your editorial remarks in your issue of March 5, 1921, about my advertising "stunt," I hired an extra man and it looks as if I will need another!

Twenty years ago I used to swipe the boss's AMERICAN ARTISAN to read going home on the car. I am one of those readers on whom a particularly catchy line makes an impression; and, as I have re-

peatedly said, I owe my ideas of advertising to AMERICAN ARTISAN. Some of my stuff I actually crib from you.

I wonder if your paper could get some shop work cards sent in. Some time ago you published different styles and I sure need some up to date system whereby I can keep an accurate record of what material is issued and time spent on each job.

No matter how busy a man may be, he can make more money by reading AMERICAN ARTISAN. Every line in it is a lesson. Lately it is better than ever.

Yours truly,

"HOOT MON."

(Charles Hahn.)

Chicago, March 18, 1921.

Opens Sheet Metal Repair Shop.

I. H. Eshelman has decided to open a repair shop, including sheet metal work, in Lewistown, Illinois. He has secured shop space in the Morgan and Williamson hardware store and is now ready for business.

Tells When a Contract May Be Canceled.

The mere fact that performance is difficult is no excuse for cancelling a contract. That point has been decided so many times as to be almost impossible to overturn in court.

The mere fact that markets have declined and business men are going to find it hard to meet their contracts, is no excuse as to why they should be permitted to cancel them.

To permit cancellation of a contract merely because one party finds it difficult to perform his share of it, would be to overturn the entire contractual theory of the law.

Many business men have doubtless saved themselves from ruin by taking prompt action in cancelling their contracts before it was too late.

A contract may be canceled any time before it has been acted on or accepted by the other party, but as soon as the other party has accepted it and taken steps to carry out his share of it, cancellation can not be made.

It may be the part of wisdom in a crisis to try and avoid losses, but it finds no sanction either in law or morals.

One party is no better than another and the law will never permit one party to avoid losses by cancelling his agreements and throwing such losses on the other party.

The whole machinery of the law is organized to prevent this very thing. And the men at fault, who have wrongfully canceled their agreements, or attempted to do so, will not be allowed to come into court and seek redress upon such grounds. "He who comes into court must come with clean hands," is a maxim as old as the law itself.

Don't take yourself too seriously. Think how long this world ran before you arrived and how long it will plod along after you leave.

James Piper Passes Away.

One of the widely known and greatly esteemed men in the hardware and sheet metal trade of Chicago was James Piper who passed away Thursday, March 24th, at his residence 2103 Powell Avenue, Chicago, Illinois.

For more than twenty years he was shipping clerk for Friedley-Voshardt Company, Chicago, and in that capacity came into relation with hundreds of the firm's patrons.

His genial disposition, friendliness, patience, and courtesy endeared him to everyone and his high sense of service won the warm regard and respect of his associates.

He is survived by his wife, daughter, and son.

The funeral will be held from his late residence Monday afternoon, March 28th, at 2 o'clock. Interment will be in Mount Olive Cemetery.

Get Together and Stop Waste in the Shop.

In almost every shop there is enough waste through misunderstanding and ill will to make the difference between success and failure in the days of sharp competition.

The only way to remove that misunderstanding and ill will is to get together in neighborly fashion and talk things over.

Intelligent, friendly discussion between all the parties concerned is at one and the same time the best school, the surest accelerator of production and the safest insurance.

Says He Can Not Get Along Without AMERICAN ARTISAN.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

We enclose check to continue our subscription to March 3, 1921. We can not get along without AMERICAN ARTISAN in our business.

Sincerely yours,

R. H. VANDEVELDE & COMPANY,
Plumbing, Heating and Tinning.

Dyersburg, Tennessee, March 21, 1921.

Notes and Queries.

Brass Plugs and Flanges.

From E. E. Nellans, Mentone, Indiana.

Kindly advise where I can buy brass plugs and flanges.

Ans.—Detroit Screw Works, 348 Franklin Street, Detroit, Michigan; Lunkenheimer Company, Beekman and Waverly Streets, Cincinnati, Ohio; McRae and Roberts Company, 227 Campbell Avenue, Detroit, Michigan; Wolverine Brass Works, Grand Rapids, Michigan; can supply you with brass plugs. 2. Brass flanges: Lunkenheimer Company, Beekman and Waverly Streets, Cincinnati, Ohio; McRae and Roberts Company, 227 Campbell Avenue, Detroit, Michigan; Newman Manufacturing Company, 68 North Washington Street, Chicago, Illinois; Glauber Brass Manufacturing Company, 49th and Superior Avenues, N. E., Cleveland, Ohio.

"Favorite" Gas Range.

From Samuel Sol and Company, 622 Second Street, Philadelphia, Pennsylvania.

We would like to know who manufactures the Favorite gas range?

Ans.—Favorite Stove and Range Company, Piqua, Ohio.

A. B. Gas Range.

From Samuel Sol and Company, 622 Second Street, Philadelphia, Pennsylvania.

Please furnish us with the name of the manufacturer of the A. B. gas range.

Ans.—A. B. Stove Company, Battle Creek, Michigan.

Coffee Pot Handles.

From E. E. Bennett, Apalachicola, Florida.

Can you tell me where I can buy wooden handles for aluminum coffee pots?

Ans.—E. B. Estes and Sons, 364 Fifth Avenue, New York City; F. W. Peterson Company, 68 Thomas Street, New York City.

Crushed-Graded Charcoal.

From G. F. Gale, Vinton, Iowa.

Will you please inform me where I can buy crushed-graded charcoal to be used for filtering purposes?

Ans.—Charcoal Supply Company, 1186 Cherry Avenue; Berger Brothers, 1176 Cherry Avenue; both of Chicago, Illinois.

Galvanized Steel Strips.

From Emil Knain, Northwood, North Dakota.

Where can I buy 18 gauge $2\frac{3}{4}$ inch wide by 2 feet long galvanized steel strips; also 10 gauge, 2 inch or $2\frac{1}{4}$ inch wide by 2 feet long strips?

Ans.—Joseph T. Ryerson and Son, 2558 West 16th Street, Chicago, Illinois; Republic Metalware Company, 1532 South Wabash Avenue, Chicago, Illinois.

Metal Garage Doors.

From L. C. Noland, The Cray Tin Shop, Boone, Iowa.

Can you give us names of manufacturers of metal garage doors that slide back in the garage along the wall.

Ans.—Merchant and Evans Company, 347 North Sheldon Street; National Automatic Door Company, Insurance Exchange Building; both of Chicago, Illinois.

Oilcloth Floor Covering.

From Van Wert Sheet Metal Works, 125 North Washington Street, Van Wert, Ohio.

Please advise who makes oilcloth floor covering.

Ans.—George W. Blabon Company, Nicetown, Philadelphia, Pennsylvania; J. C. Dunn and Company, Camden, New Jersey; Alden Sampson and Sons, 320 Broadway, New York City.

Wood Well Bucket Valves.

From J. E. Jackson, Kenton, Tennessee.

Kindly advise where I can buy $4\frac{1}{2}$ inch wood well bucket valves.

Ans.—Hibbard, Spencer, Bartlett and Company, 303 North State Street, Chicago, Illinois.

Yard Fountains.

From J. H. Bedford, P. O. Box 67, Bridgeport, Illinois.

Will you please inform me who makes yard fountains to be placed in cement basins.

Ans.—James B. Clow and Sons, Franklin and Harrison Streets, Chicago, Illinois; Fred J. Meyers Manufacturing Company, Hamilton, Ohio; Southard-Robertson Company, Peekskill, New York.

Illustrations of New Patents

Watch This Page. Keep Yourself Informed Concerning Improved Devices Which May Save Labor in Your Shop or Add Another Source of Income to Your Retail Store.

1,366,145. Fishing Net. Anthony Wolf, Long Isl. and City, N. Y. Filed July 13, 1920.

1,366,224. Wrench. John L. Walsh and Herbert H. Reiber, Philadelphia, Pa. Filed June 14, 1920.

1,366,243. Tool Chest. Francis Carr, Ogden, Utah. Filed May 3, 1919.

1,366,244. Tongs. George H. Casey, Ione, Wash. Filed April 12, 1920.

1,366,259. Portable Hand Tool for Capping and Sealing Bottles. Orrin A. Hanford, Terre Haute, Ind. Filed November 28, 1919.

1,366,272. Can Top Lifter. Alexander C. Murray, Timaru, New Zealand. Filed May 9, 1916. Renewed June 11, 1920.

1,366,323. Mail Box Signal and Latch. John B. Maserang, Belleville, Ill. Filed July 23, 1920.

1,366,341. Screwdriver. David E. Anderson, Spokane, Wash. Filed July 21, 1919.

1,366,365. Attachment for Oil Stoves. John R. Donnelly, Fairfield, Me., assignor of one-half to Daniel B. Donnelly, Fairfield, Me. Filed August 18, 1919.

1,366,379. Hand Weeder. John Gilson, Sr., Port Washington, Wis., assignor to J. E. Gilson Company, Port Washington, Wis., a firm consisting of John Gilson, Sr., and John E. Gilson, Jr. Filed November 19, 1917.

1,366,418. Washing Machine. William Remmert, St. Louis, Mo., assignor to Remmert Manufacturing Company, Belleville, Ill., a Corporation of Illinois. Filed November 18, 1918.

1,366,421. Combined Coal and Gas Stove. John H. Sattler, San Francisco, Calif. Filed May 14, 1919.

1,366,425. Metal Working Machine. John H. Shepherd, Elyria, Ohio. Filed July 10, 1918.

1,366,440. Lawn Mower. Walter F. Welch, Jamaica, N. Y. Filed September 8, 1919.

1,366,444. Portable Stove. William Edwards Baxter, Louisville, Ky. Filed October 17, 1916.

1,366,461. Flashlight. Gustaf Ivar Johnson, Malden, Mass. Filed October 23, 1919.

1,366,468. Safety Razor. John L. King, Chicago, Ill., assignor to Rotary King Safety Razor Company, a Corporation of Delaware. Filed February 18, 1920.

1,366,480. Electric Iron. Jose A. Oca-Balda, New York, N. Y. Filed October 7, 1919.

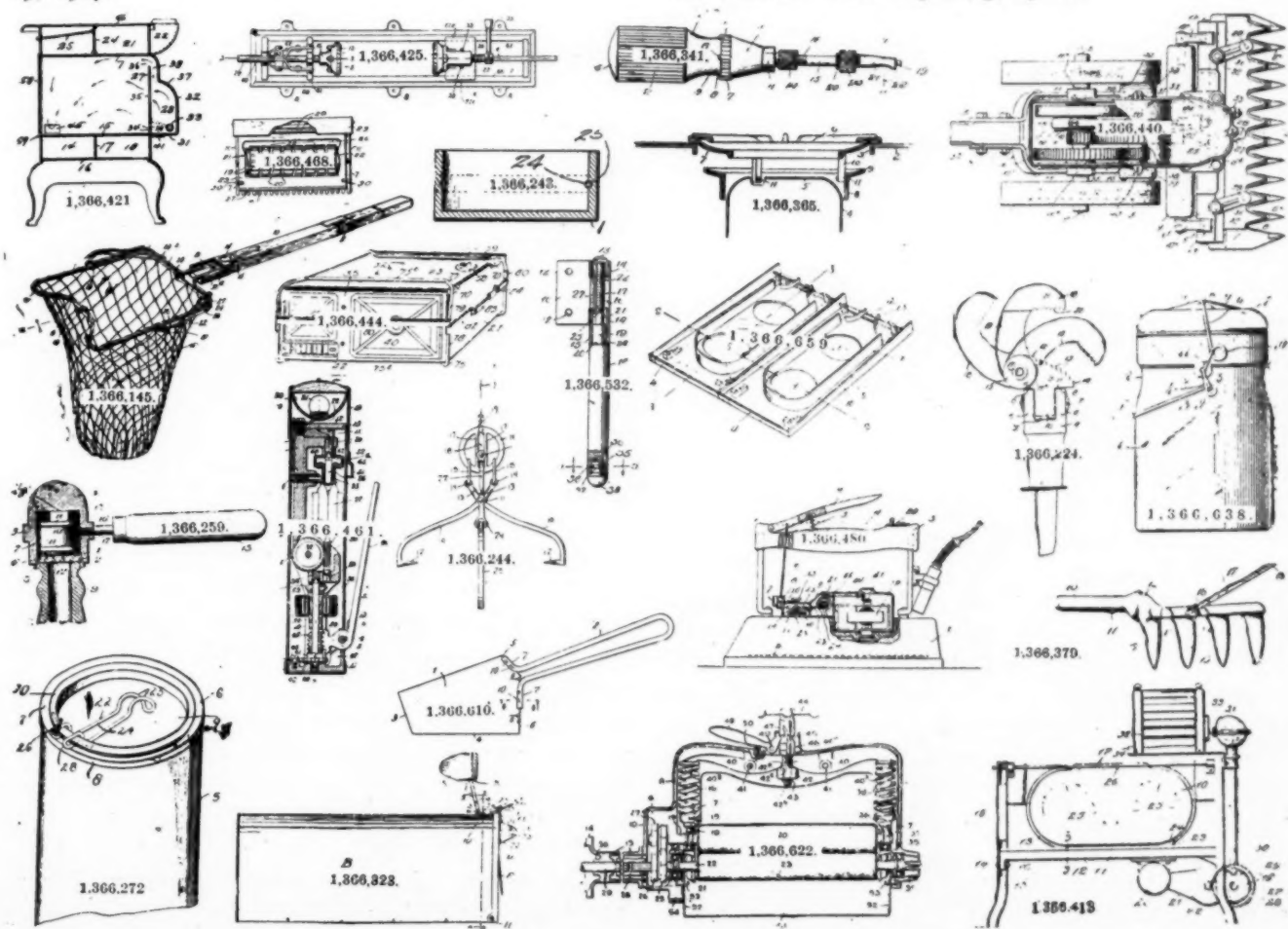
1,366,532. Razor Sharpening Device. Nicholas E. Gibson, Oak Park, Ill. Filed June 1, 1920.

1,366,610. Kitchen Knife and Method of Making. Rufus K. Teller, Unadilla, N. Y. Filed March 17, 1919.

1,366,622. Wringer. James J. Wood, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed February 27, 1920.

1,366,638. Container Fastener. Charles L. Demers, Claremont, N. H. Filed March 1, 1920.

1,366,659. Gas Range Top. Willard Honabaum, Detroit, Mich. Filed April 15, 1920.



Weekly Report of the Markets

General Conditions in the Steel Industry. Review of Prices and Tendencies in Sheet Metals, Pig Iron, etc.

STRUCTURAL STEEL PRODUCTION SHOWS DECIDED INCREASE.

In the welter of uncertainties which characterizes the steel situation, one fact stands out with welcome encouragement. It is this: The week's production of structural steel was the best in many months.

The mild revival in building has caused better buying of steel for construction purposes.

According to the report of the Bridge Builders and Structural Society, the fabricating shops of the country booked orders for fabricated structural steel during February totaling 25,200 tons, which is the smallest amount of new business for any single month since February, 1919, and is equivalent to only 14 per cent of the country's shop capacity.

In January the bookings amounted to 32,000 tons, equivalent to 18 per cent of the shop capacity.

Shipments during February amounted to from 65,000 to 70,000 tons, or 40 per cent of capacity.

Several steel export houses are doing a substantial business with Mexico.

One house is transacting a monthly business of over \$500,000 and another interest has been doing twice that amount.

During the past year and a half the steel interests in this country have been taking orders from Mexico aggregating \$3,000,000 a month and American bankers are only awaiting the recognition of Mexico by the present administration to extend credits that will bring in tonnage which would aggregate twice that done with any other Latin American country.

The amount of steel pipe sold to Mexican interests by American makers has run into millions of dollars during the past year.

Steel.

During the week there has been a growing tendency among the independents to advance prices from the recent low levels quoted.

This move was started several weeks ago by the Lackawanna Steel Company, and last week the Brier Hill Steel Company and the Youngstown Sheet & Tube Company withdrew all quotations.

In some quarters it is understood that these three interests have moved their schedule of prices back to the level established by the War Industries Board in March, 1919, and still adhered to by the corporation, but the fact is that all orders are now a matter of negotiation and exact prices are kept from the public.

However, the Lackawanna Steel Company has been known to quote the March, 1919, prices recently.

The big factor in preventing further reductions in iron and steel prices outside of wages is freight rates, and the second step toward reducing these was taken last week.

The first step was the cut in wages of railroad employes.

Last week some of the transcontinental roads went before the Interstate Commerce Commission asking permission to reduce rates on lumber. The significant point is that the railroads asked for the reduction.

Copper.

The copper interests that have been quoting the bottom of the market or 12 cents for some time past have advanced their prices.

How much the increase amounts to has not been determined as no transactions have been effected, but a consumer canvassed the market earlier in the week for 10,000,000 pounds for which he was willing to pay 12 cents for prompt delivery and was unable to place the order.

Hence the 12-cent price has disappeared temporarily at least. The larger producers continue to quote from 12¾ to 13 cents a pound for March, April and May deliveries, but the market is extremely quiet.

Directors of the North Butte have voted to suspend operations and the trade fully anticipates announcement of similar action on the part of some of the large copper mining companies before the end of the current month.

These interests fully realize the hardship that it will bring to the communities that have grown up around their individual mines, but state that they will lose less money by putting a larger percentage of men on development work than by producing copper at the present ruinous prices.

The output of refined copper in February totaled 100,000,000 pounds.

The Wall Street Journal quotes "One of the best informed men in the industry" as saying that shut-down will in the course of a few more months become obligatory on many of the high-cost mines, and believes that the only solution of the copper difficulty is for such mines voluntarily to do so now.

This would bring production low enough so that substantial inroads could again be made into copper surplus, instead of many millions of pounds of copper being added to it each month, as has been the case for the last half year and more.

"Piecemeal curtailment, a little now and then, is not a solution of the problem," he said. "Only drastic action will enable the industry successfully to face the conditions that are rapidly developing both here and in Europe.

"So long as production exceeds consumption, buyers will stay out of the market afraid to make commitments lest the price decline still further before they can work up the metal that they buy. With one producer and then another reducing output slightly, the increasing top-heaviness of the market and the resulting decline in quotations cause consumption to decrease more rapidly than production is cut."

Copper sheet, mill base, declined ¼ cent per pound in Chicago during the week.

Tin.

There is an improvement in inquiry for tin from consumers, but it is confined to the smaller ones, as stocks are still large with the tin plate mills and large consumers by reason of the falling off in their orders during the past three months, and their consequent limited mill operations.

But the inquiry, small as it is, has served to show how reluctant dealers and importers are to make sales at present prices, which show them heavy losses on their stocks both on spot and to arrive, and also no margin on new purchases for import.

Also price is so low that it would be dangerous to take any liberties with the market by selling in anticipation of further declines.

Even when sales are made there is anxiety shown to try to cover for future deliveries at a substantial advance, but even then sellers are difficult to find.

An increase of $1\frac{1}{2}$ cents per pound is reported for Chicago market prices, making pig tin $32\frac{1}{4}$ cents and bar tin $34\frac{1}{4}$ cents per pound.

Lead.

Lead declined 5 points in the Chicago market during the week. American pig lead decreased from \$4.45 per hundred pounds to \$4.40, and bar lead from \$5.20 to \$5.15 per hundred pounds.

Solder.

No further changes have occurred in Chicago solder prices. The quotations now in effect are as follows: Warranted, 50-50, per hundred pounds, \$20.00; Commercial, 45-55, per hundred pounds, \$18.50; Plumbers', per hundred pounds, \$17.25.

Zinc.

The attitude of the zinc producers remains practically unchanged. There is no pressure to sell, but a disposition to meet the market in a limited way for prompt shipment is in evidence. Futures are nominally 5 cents per 100 pounds advance per month, but are difficult to buy, and bids from producers themselves on this basis for April and May are reported, which is strong evidence as to present cost of smelting.

A falling off to the extent of 5 points is noted in Chicago prices for zinc in slabs, the quotation now being \$5.20 per hundred pounds.

Sheets.

Beyond question, there is a heavier call for sheets now than a week or two ago, although there is not much demand even at present.

The improvement is chiefly by way of release on orders previously suspended. Really fresh buying in the open market is very light, though possibly it is not altogether as light as a fortnight ago.

The improvement in demand is fairly well distributed, and being so well distributed and so small it is not very noticeable in any particular line.

The automobile industry continues to give a better account of itself week by week in connection with sheet consumption.

It is not consuming a much larger sheet tonnage, but it is moving its inventories.

Of particular note is the case of a large body maker in the east, just in receipt of releases from two makers of moderately wide selling automobiles, covering the movement of a couple hundred or more bodies a day, which will soon clear the floors and make way for additional consumption of sheets.

While the improvement in the automobile industry is rather widespread, this industry can not be expected to engage any large part of the sheet manufacturing capacity.

Tin Plate.

Demand for tin plate against the canning crops is still light, considering the season, and particularly so in view of the small supplies that have been furnished thus far. There is some demand along this line, but not much. There is quite a fair demand for the milk industry. Demand for general purpose tin plate is quite conspicuous by its absence.

The mill price of tin plate continues to be maintained, so far as can be ascertained. There is no information that any sales have been made at cut prices.

According to the general philosophy of the trade, it would be impossible for any seller to make sales of any magnitude at substantial cuts from the \$7.00 price without the fact becoming very generally known at once. As to very small cuts, there is a bare possibility of their being made without attracting much attention.

A considerable part of the stocks of tin plate in second hand remains, though offered for months at far below the price for production plate, and evidently this tin plate is decidedly misfit.

Old Metals.

Wholesale quotations in the Chicago district which should be considered as nominal are as follows: Old steel axles, \$14.50 to \$15.00; old iron axles, \$26.50 to \$27.00; steel springs, \$12.00 to \$13.50; No. 1 wrought iron, \$11.50 to \$12.00; No. 1 cast, \$14.50 to \$15.00; all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 7 cents; light brass, $4\frac{1}{2}$ cents; lead, 3 cents; zinc, $2\frac{1}{2}$ cents; cast aluminum, 10 cents.

Pig Iron.

"Every now and then there comes to light a reassuring fact," says the Matthew Addy Company, Cincinnati, Ohio, "as for instance, the case of a Southern furnace which is still in blast and which now is employing 115 men and making more iron than last year when it had 310 men on the rolls.

"The 110 men are actually doing more work than was accomplished by the 310. Then they were spoiled by easy money and were loafing on the job. Today it is different.

"Part of our troubles come from the fact that with the highest wages paid in history in many instances an honest day's work was not being done. And if this situation can be changed we shall have made one long step on the road to readjustment. But just now the trade is so nearly paralyzed that it is pitiable to study its statistics. And nothing promises an immediate rebound from today's low point. In fact there is no assurance that the ultimate low point has been reached."

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

The prices and discounts quoted on this and the following pages, are, for the most part, subject to change without notice. Owing to the unsettled conditions of the markets and the shortage of materials it is practically impossible for any manufacturer to guarantee his prices for any given length of time.

METALS	HARDWARE	Scratch.	BEVELS, TEE.
PIG IRON.	ADZES.	No. 18, socket Handledper doz. \$ 2 50	Stanley's Rosewood handle, new listNets
Northern Fdy. No. 2.....\$26 70	Carpenters'.	No. 344 Goodell- Pratt, list less.....35-40%	Stanley iron handle.....Nets
Southern Fdy. No. 2.....33 17	Plumbs.....Per doz. \$29 00	No. 7 Stanley...per doz. \$ 2 25	BINDING CLOTH.
Lake Sup. Charcoal.....38 50	Coopers'.		Zincd55%
Malleable27 20	Barton'sNet		Brass40%
	White'sNet		Brass, plated.....60%
FIRST QUALITY BRIGHT TIN PLATES.	Railroad.	AXES.	BITS.
	Plumbs.....Per doz. \$30 00	First Quality, Single Bitted, 3 to 4 lb., per doz. 16 50	Auger.
		First Quality Double Bittedper doz. 22 50	Jennings Pattern.....Net
		Broad.	Ford Car.....List plus 5%
		Plumbs. Can. Pat., 6-lb. 65 00	Ford's Ship....." 5%
		Single Bitted (without handles).	Irwin35%
		Plumbs, 4½-lb.....19 50	Russell Jennings.....plus 20%
		Double Bitted (without handles).	Clark's Expansive.....33½%
		Plumbs, 4½-lb.....23 50	Steer's " Small list, \$22 00..5%
			" " Large " \$26 00..5%
		BAGS, PAPER, NAIL.	Irwin Car.....35%
		Pounds .. 10 16 20 25	Ford's Ship Auger pattern CarList plus 5%
		Per 1000..\$5 00 6 50 7 50 9 00	Center10%
		BALANCES, SPRING.	Countersink.
		Sight Spring.....Net	No. 18 Wheeler's...per doz. \$2 25
		StraightNet	No. 20 " " " 3 00
			American Snailhead " 1 75
		BARS, WRECKING.	" Rose " " 2 00
		V. & B. No. 12.....\$0 45	" Flat " " 1 40
		V. & B. No. 24.....0 75	Mahew's Flat " 1 60
		V. & B. No. 324.....0 86	" Small " " 1 90
		V. & B. No. 30.....0 85	
		V. & B. No. 330.....0 90	Dowel.
			Russel Jennings.....plus 20%
		BASKETS.	Gimlet.
		Clothes.	Standard Double Cut Gross \$3 40
		Small Willow...per doz. \$15 00	Nail Metal Single
		Medium Willow. " 17 00	CutGross \$4 00—\$5 00
		Large Willow... " 20 00	Reamer.
		Galvanized. 1 bu. 1½ bu.	Standard Square.....Dox. \$2 50
		Per doz.....\$16 08 \$18 72	American Octagon... " 2 50
		BEATERS.	Screw Driver.
		Per doz.	No. 1 Common.....20
		No. 7 Tinned Spring Wire..\$1 10	No. 26 Stanley.....75
		No. 8 Spring Wire Cop- pered1 50	
		No. 9 Preston.....1 75	BLADES, SAW.
		Egg.	Wood.
		Per doz.	Disston 30-in.
		No. 50 Imp. Dover.....\$1 10	Nos.6 66 26
		No. 102 " " Tinned 1 35	\$9 45 \$10 05 \$9 45
		No. 150 " " hotel 2 10	BLOCKS.
		No. 10 Heavy hotel tinned 2 10	Wooden20%
		No. 13 " " " 3 30	Patent20%
		No. 15 " " " 3 60	
		No. 18 " " " 4 50	BOARDS.
		Hand.	Per doz.
		8 9 10 12	24x24\$13 65
		Per doz.\$11 50 13 00 14 75 18 00	26x2616 05
		Moulders'.	28x2818 85
		12-inchPer doz. 20 00	30x3021 30
			33x3325 50
		BELLS.	36x3630 50
		Call.	Wash.
		3-inch Nickeled Rotary Bell.	No. 760, Banner Globe
		Bronzed base...per doz. \$5 50	(single)per doz. \$5 25
		Cow.	No. 652, Banner Globe
		Kentucky30%	(single)per doz. 6 75
		Door.	No. 801, Brass King, per doz. 8 25
		Per doz.	No. 860, Single—Plain
		New Departure Automatic \$7 50	Pump6 25
		Rotary.	BOLTS.
		3 -in. Old Copper Bell... 6 00	Carriage, Machine, etc.
		3 -in. Old Copper Bell, fancy8 00	Carriage, cut thread, ¾x6 and sizes smaller and shorter40-10%
		3 -in. Nickeled Steel Bell 6 00	Carriage sizes larger and longer than ¾x6.....40-5%
		3½-in. Nickeled Steel Bell 6 50	Machine, ¾x4 and sizes smaller and shorter...50-10%
		Hand.	Machine, sizes larger and longer than ¾x4.....50%
		Hand Bell polished List plus 15%	Stove65-10%
		White Metal.....15%	Tire50%
		Nickel Plated.....5%	Mortise, Door.
		Swiss10%	Gem, iron.....5%
		Miscellaneous.	Gem, bronze plated.....5%
		Church and School, steel alloys30%	
		Farm, lbs. 40 50 75 100	
		Each\$3 00 3 75 5 50 7 25	